

EMOTIONAL AND BEHAVIORAL DISTURBANCE AND  
SPEECH/LANGUAGE IMPAIRMENT: PREVALENCE  
OF THE DUAL DIAGNOSIS IN A  
SCHOOL-AGE POPULATION

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The purpose of this study was to examine the prevalence of the comorbidity of emotional/behavioral disorders (EBD) and speech/language disorders among those students identified as under The Individuals With Disabilities Education Act criteria as emotionally disturbed and speech impaired. The literature reviewed included clinical and school settings that examined a cooccurrence of language disorders in the EBD population. Other research reported a lack of routine involvement of speech/language therapists in the assessment of the EBD population. Implications from clinical studies suggested a need for greater attention to language disorders in a multi- and interdisciplinary assessment.

This study investigated the prevalence of the dual occurrence of EBD and speech/language disorders in Grades 2 through 6 in Texas schools in light of the known research. Relationships in ethnicity and socioeconomic status were examined using chi-square test of independence. Aggregate data were obtained from the database of the Texas Pupil Information Management System and from survey questionnaire responses provided by speech therapists in selected districts.

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Alas, my "auto" relationship with I-35 is happily over!

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## CHAPTER 1

### INTRODUCTION

Language is the quintessential achievement of man, and it is necessary for effective communication and interaction. Language may be considered a "code for communication . . . communication itself . . . the basis for acquiring information, and an indication of cognitive development" (Hresko, 1996, p. 433). For many students identified with emotional and/or behavioral disorders (EBD), these functions of language may not operate successfully; language may contribute to unsuccessful social interactions or even hamper the acquisition and exchange of ideas and information. In essence, language is one factor in the complex mosaic that unravels questions about social interactions.

The evaluation of communication skills may be a justified component of an assessment for students with EBD who receive special education services. Teachers of children with behavioral disorders often acknowledge language deficits in these students (McDowell, Adamson, & Wood, 1982; Safran & Safran, 1987). However students do not always receive language services, nor are all students identified who might qualify for such services. Some studies (e.g., Cohen, Davine, & Meloche-Kelly, 1989; Cozad & Rousey, 1966; Davis, Sanger, & Morris-Friehe, 1991; Griffith,



Rogers-Adkinson, & Cusick, 1997; Hummel & Prizant, 1993; Keefe, Hoge, Shea, & Hoenig, 1992; Miniutti, 1991; Novak, 1991/1992; Rogers-Adkinson, 1994/1995; Ruhl, Hughes, & Camarata, 1992; Warr-Leeper, Wright & Mack, 1994) have revealed a recurring pattern of language deficits in these students. For students who appear to communicate intelligibly, this pattern is not necessarily perceived as a deficit and, therefore, may not be addressed in the assessment process (Audet & Hummel, 1990; Audet & Ripich, 1994). Because competence in language may be an adjunct to social competencies and "a better predictor for successful negotiating social skills," Rogers-Adkinson (1994/1995, p. 34) proposed that a relationship between language and EBD type disabilities may be best addressed as a prime consideration.

Language is a multidimensional system including both verbal and nonverbal elements. Because social competency and language skills are enmeshed, linguistic competence may be a requisite factor for social competence (Bates, 1974). Furthermore, competence implies the ability to use language proficiently in social situations; in fact, Nippold (1993) emphasized that lack of acceptance in social activities may have a subtle, yet powerful and profound impact on the "self-esteem, pride, and happiness of adolescents" (p. 25). Personal interaction, both in verbal or nonverbal communication, may be dependent upon pragmatic language skills. Dore (1977) explained that pragmatics "has to do with intentions of the speaker,

the relations of utterances to contexts and conversational skills" (p. 142). Yet these complex, often subtle communication skills may not always be identified as deficits in many students with EBD. Ervin-Tripp (1977) proposed that understanding social information in the speech of others is relevant to such conditions as audience, task, and setting. Knowing the person, purpose, and place becomes important in communication.

In an in-depth analysis of the components of social skills, Argyle (1980) defined social competence as the "possession of the necessary skills to produce the desired effects on other people in social situations" (p. 121). Moreover, Argyle argued that social competency is not necessarily a global factor that equates or transfers from situation to situation; individuals may demonstrate social competency in one situation and not another.

Students identified with EBD exhibit behavioral characteristics that inhibit their ability to learn. In the field of special education, the identification of students with EBD and language deficits may still be illusive, yet language disorders and psychiatric and emotional disorders resonate as cooccurring disorders in the psychology and speech/language and psychology literature. Such studies include: Baker and Cantwell (1982a); Cantwell and Baker (1977, 1980, 1987, 1991) (longitudinal studies in speech clinics); Beitchman, Peterson, and Clegg (1988) (family demographics); Coster and Cicchetti (1993) (maltreated children); Davis et al. (1991) (adolescent juvenile delinquents); Keefe et al. (1992) (public

elementary school children); Miniutti (1991) (inner city youth); Novak (1991/1992) (public elementary and middle school children); Rogers-Adkinson (1994/1995) (residential, multiethnic elementary-age students); Ruhl et al. (1992) (2nd through 10th graders in public school resource settings); and Warr-Leeper et al. (1994) (males, elementary age to 13 years in a residential setting). Giddan (1991) reviewed the implications of this communication deficit in students with EBD and observed that "there is mounting evidence from both mental health and educational settings that many children with behavioral or psychiatric disorders have speech and language deficiencies" (p. 291).

Although many behavioral-driven interventions include communication skills as part of the social repertoire (e.g., Braaten, 1995; Elliot & Gresham, 1993; Goldstein & Glick, 1987), language therapy is not always a consideration for classroom interventions. Historically, these students were placed in separate programs in schools or outside of traditional settings (Kauffman, 1994; Rhodes, 1970). Ruhl et al. (1992) expressed concern that, in fact, verbal competency may impede diagnoses and interventions. Recent meta-analysis on the effectiveness of social skills intervention (e.g., Kavale, Mathur, Forness, Rutherford, & Quinn, 1997; Mathur, Kavale, Quinn, Forness, & Rutherford, 1998; Mathur, Quinn, & Rutherford, 1996) disclaimed social skill interventions and instruction as a resounding success in remedying social skills. Social skills intervention

programs were inherently designed with behavior as the primary construct for remediation rather than the acknowledgment of language as a significant diagnosis or premise (e.g., Connolly, Dowd, Criste, Nelson, & Tobias, 1995; Goldstein & Glick, 1987).

As a core prerequisite for successful interpersonal relationships and life achievement, language is acknowledged as critical for social interactions (e.g., Aiken & Martin, 1994; Bullis & Gaylord-Ross, 1991; Schloss, Schloss, Wood, & Kiehl, 1986). Thomas' (1992) analysis of language skills included semantics, morphology, syntax, word finding, prosody, kinesics, proxemics, and pragmatics.

Pragmatics remained integral to language experiences and abilities (Bates, 1976; Ervin-Tripp, 1977; McDonough, 1989; Novak, 1991/1992; Prutting & Kirchner, 1983, 1987). Early designs of assessment attempted to capture the range of receptive and expressive language in pragmatic skills through language samples or discourse (Prutting & Kirchner, 1983); later efforts reviewed and refined assessment procedures (Damico, 1985, 1992).

Adolescents with pragmatic language deficits are especially vulnerable to peer responses (Damico, 1993; Nippold, 1993). For instance, Nippold attributed some pragmatic deficits to syntax and semantics in these youth and recommended interpersonal negotiation strategies and knowledge of slang expressions to improve their language competencies.

## Purpose

The purpose of this study was to identify the cooccurring disabilities of EBD and speech/language disorders among those students identified as EBD who are being served in the public schools. Students were identified by (a) ethnicity and (b) socioeconomic status. Although research (e.g., Cantwell & Baker, 1991; Prizant et al., 1990) supports the cooccurrence of language deficits and EBD, the prevalence of this cooccurring disability in the schools is not documented in the literature. Descriptive information relevant to the dual diagnoses is provided, and statistical analysis examines the variables of ethnicity and socioeconomic status in this population.

Identification for speech/language services are specified because speech is inclusive of articulation and/or fluency problems and language-based deficiencies. Those students who have emotional disturbance as defined by The Individuals With Disabilities Education Act (IDEA) (1990, 1997) and speech/language disabilities determined also by the eligibility for IDEA are identified in this study.

### Significance

This study is significant at both the diagnostic level and more importantly at the practitioner level. Speech therapists, psychologists, and diagnosticians are often under intense assessment demands, and the multifaceted diagnoses are not always addressed. Moreover, the literature echoes a call for diagnostic consideration of a comorbidity between EBD

and language disorders (Cantwell & Baker, 1991; Prizant et al., 1990) that may not be addressed routinely in the assessment process. An attempt has been made in this study to identify the prevalence of those students who are identified with both EBD and language disabilities in light of the cooccurrence reported in the literature. Language assessments can identify both the composite and specific areas of language that are strengths and weaknesses for these students.

At the practitioner classroom level, efforts to provide appropriate interventions for both EBD and language deficiencies would be most relevant in meeting the individual needs of those students identified with cooccurring disabilities. Language therapy may be integrated more appropriately into individual educational plans, with specific goals and objectives targeted for identified areas of language weaknesses. These language goals may be addressed through individual therapy, small-group therapy, whole classroom-based interactive goals, or a combination of these instructional arrangements. The collaborative intervention efforts may even substantially impact teaching effectiveness (Dodge, 1994) and increase the success of behavioral and language instructional objectives.

### Limitations

Limitations to the study focused on basic nomenclature defined by the sources used to collect the data, the data collection methods, and sample. First, the Pupil Information Management System (PEIMS)

collecting methods does not distinguish speech disabilities. Articulation, fluency, voice, and language are all under the umbrella speech disorder. Language is not identified as its own category. Secondly, a further limitation was number of school districts who responded to invitations to participate in the study. Although large Texas cities agreed to participate, some major cities declined or did not respond. Furthermore, the total number of students used in this part of the study was determined by the responses of speech therapists who were cognizant of the speech.

Finally, limitation was contingent on the identification processes for special education services. Although many students were identified with learning disabilities and EBD, this group was not considered in this study. The research will be limited to only those students who were identified with EBD and whether or not they were also identified with a speech disorder. Therefore, this population is even more limited.

### Definition of Terms

Assessment instruments are standardized, informal tools used to assess and measure the performance of an individual in areas of cognition, language, auditory, and academics (McLoughlin & Lewis, 1981).

Emotional behavioral disorder (EBD) is used to identify the students in this study identified under IDEA (1990) or the reauthorization of IDEA (1997). The students demonstrate one or more of the following characteristics over a long period of time, and to a marked degree, which

adversely affects educational performance: (a) an inability to learn that cannot be explained by intellectual, sensory, or health factors; (b) an inability to build or maintain satisfactory interpersonal relationships with peers and teachers; (c) inappropriate types of behaviors or feelings under normal conditions; (d) a general pervasive mood of unhappiness or depression; or (e) a tendency to develop physical symptoms, pains, or fears associated with personal or school problems. The federal definition included students with autism (IDEA, 1990); but this population is not part of this study. Children who are socially maladjusted are not included unless diagnosed as seriously emotionally disturbed. The acronym ED will be used for this population in Chapters 4 and 5 since this term is used in the PEIMS database in Chapters 3 and 4.

Ethnicity refers to designations of groups of people distinguished by customs and characteristics. For this research the ethnic groups identified include Caucasian, African-American, Hispanic, and Asians or Native-Americans (Janzen, 1994; Murdock, 1997).

Language disorder is defined as any difficulty with linguistic units which range from absence of language to variants in syntax, reduced vocabulary, verbal formations, linguistic symbols for communication, effective communication dictated by the norms of the community (Nicolosi, Harryman, Kresheck, 1983). See additional explanation under speech/language definition.



PEIMS is the Texas Pupil Information Management System database of information about student demographics, school, and instructional information. The study is the source of the data for students with emotional behavioral disorders and speech impairment, their ethnicity, and socioeconomic status. Speech in the database is inclusive of articulation, fluency, and voice as well as language processing deficits in oral receptive and expressive language.

Pragmatics is that branch of language that deals with language used in context and as an interpersonal means of communication (Muma, 1998). Pragmatics, as a personal communication skill, is inclusive of both receptive and expressive components of language.

Socioeconomic status, for the purpose of this study, is the income level of families and is determined by the federal/state eligibility criteria to receive free food programs in the schools. The socioeconomic status is yes, economically disadvantaged, or no, not economically disadvantaged. These categories are used in the PEIMS database.

Speech/language disorder--for the purpose of this study, speech disorders or impairment include deficits in speech for articulation, fluency, and voice and deficits in oral language in the expression or reception processing of oral language. Language deficits may include form (phonology, morphology, syntax), content (semantics), and/or the function in communication (pragmatics) (Owens, 1995). For the purpose of this

research, speech/language, language, or oral language are used in the literature review. The nomenclature "speech" is used in Chapters 3 and 4 when discussing the research based on the data from PEIMS. PEIMS identifies only the term speech, for both speech and language disorders.

## CHAPTER 2

### LITERATURE REVIEW

A theme that emerged from the review of literature is that language is relevant in the assessment of students with emotional behavioral disorder (EBD) (Prizant et al., 1990). Moreover, pragmatic language or the function or use of language in context (Bates, 1976; Damico, 1985; Grice, 1975; Hresko, 1996; Prutting, 1982) was addressed as a significant part of language acquisition and application. This functional approach, defined as pragmatics, is "the capacity to use language for a purpose" (Hresko, 1996, p. 459). While efforts to study and explain the relationship between behavior and language appear in the literature (Baltaxe & Simmons, 1990; Prizant et al., 1990), no assessment to address both diagnoses has appeared as a routine approach to evaluation. Efforts to analyze pragmatic skills are forthcoming in the field of speech as seen in the work of Damico (1985, 1992) and Prutting and Kirchner (1983) who developed qualitative descriptive models and Phelps-Terasaki and Phelps-Gunn (1992) who created a standardized quantitative item-analysis instrument.

Historically, the treatise of Bates (1976) addressed pragmatics and sociolinguistic components of language, and the writings of Ervin-Tripp (1977) focused on a pure description of pragmatics. Thus, as language was

addressed as a vehicle for interpersonal and social relationship, speech/language pathologists began to consider the identification and assessment of pragmatic skills (Damico, 1985, 1993; McDonough, 1989, Novak, 1991/1992; Prutting & Kirchner, 1983, 1987). Prizant and Wetherby (1990) concluded that language should be considered for intervention in the school setting.

In the field of special education, students with EBD were targeted for social skill remediation and interventions (e.g., Elliott & Gresham, 1993; Goldstein & Glick, 1987; Rutherford, Quinn, & Mathur, 1996). Based on psychoeducational assessment, individual education plans were designed and often included goals and objectives for instruction in specific social behaviors and some communication goals (e.g., Braaten, 1995; Mathur & Rutherford, 1994).

In the fields of psychology and speech/language, professionals began to address the relationship of speech and language (e.g., Baltaxe & Simmons, 1990; Damico, 1993; Prizant et al., 1990). Prizant et al. reported a relationship between behavior and emotional disorders and language disorders. Despite these separate findings and calls for more multidisciplinary efforts, the convergence of these three disciplines--psychology, speech, and education--simply did not always appear. Prizant and Wetherby (1990) recognized the prevalence of a dual diagnoses

language and EBD when the speech/language therapist participated in the evaluation.

### Parameters of the Review

Although this literature review included an examination of some early literature on pragmatic language, the emphasis was on recent research studies (1980 to 1999) with school-age children and adolescents. Data were collected through manual literature searches of relevant journals, computerized literature searches of databases, and ancestry searches of previous reviews. Electronic searches included the databases for the American Speech and Hearing Association, the Office of Education and Research (ERIC), PsychLit, and Dissertation Abstracts International. Descriptors included pragmatics, pragmatic language, behavior, interpersonal communication, behavioral disorders, emotional disorders, interpersonal behavior and communication, and nonverbal communication.

### Children and Youth With Emotional and Behavioral Disorders

Defining behavioral disorders is not simple. In 1977 the Advanced Institute on Definitions of Emotional Disturbance and Behavioral Disorders set the tone in a monograph entitled, Disturbing, Disordered, or Disturbed? (Wood, 1982). Wood and Lakin (1982) reviewed 16 journals for descriptive and intervention studies and found 15 different terms for this population. Emotionally disturbed was by far the most used primary label or term, followed by disruptive, and then behaviorally disordered. Although

these terms dominated, synonyms (e.g., behavior deficit), generic cluster terms (e.g., behavior or emotion), specific category (e.g., conduct problem or delinquent), or behavior clusters (e.g., disruptive, noncompliant) were also used.

Differences in definitions were common. For instance, Kauffman (1982) discussed the issue of labels and presented a social learning theory perspective that examined three forces impacting these students: environment, behavior, and cognition. Kauffman did not provide a definitive definition, but rather called for an examination of factors that contributed to diagnosis and intervention. Wood (1982) criticized the array of terms and called for elements of a good descriptor to include the disturber element, the problem behavior, the setting element, and the disturbed element.

Other perspectives conveyed this lack of consensus. Nelson and Rutherford (1990) were concerned with the current focus on defining the lexicon for emotionally disturbed or socially maladjusted when, in reality, the services for these students were the real issue. Differences in social maladjustment and social deviance were reviewed by Weinberg and Weinberg (1990), who called for specifics to determine when disturbed or disordered behavior may replace "socially maladjusted" (p. 157). Discussions relevant to consensus and definitions are far from conclusive.

Bower (1960) highlighted five characteristics that form the basis of the federal definition for special education services. The United States Office of Education's definition is used in most states that accept federal funding. These criteria are used to identify students under The Individuals With Disabilities Education Act (IDEA, 1990), and they include the following provisions:

(i) The term means a condition exhibiting one or more of the following characteristics over a long period of time and to a marked degree, which adversely affects educational performance:

(A) An inability to learn which cannot be explained by intellectual sensory or health factors;

(B) An inability to build or maintain satisfactory relationships with peers and teacher;

(C) Inappropriate types of behavior or feelings under normal circumstances;

(D) A general pervasive mood of unhappiness or depression;

(E) A tendency to develop physical symptoms or fears associated with personal or school problems.

(ii) The term includes schizophrenia. The term does not apply to children who are socially maladjusted, unless it is determined that they have a serious emotional disturbance. (p. 9)

The reauthorization of IDEA (1997) maintained the criteria of the previous law, but changed the eligibility category from serious emotional disturbance to emotional disturbance.

For over a decade, the Council for Exceptional Children, Council for Children With Behavioral Disorders division, recommended a more descriptive and inclusive term for children and youth demonstrating these behaviors (Huntz, 1985). Forness and Knitzer (1990) also emphasized a more inclusive definition. During the reauthorization of IDEA, advocates for a more precise and inclusive definition were vocal (e.g., Guetzloe, 1998a, 1998b; McIntyre & Forness, 1996). Efforts to present the rationale for a more inclusive definition to the United States Department of Education were directed by Beverly Johns, President of the Council for Children With Behavioral Disorders, and Eleanor Guetzloe, Advocacy and Government Relations Chair (Guetzloe, 1998a). The Council for Children With Behavioral Disorders definition considered cultural and ethnic factors, coexistence of disorders, settings, and related labels in their proposed definition. However, the federal definition of emotional disturbance prevailed.

### Social Skills and Students With Behavior Disorders

The literature on social skills training is replete with literature reviews (e.g., Prizant & Wetherby, 1990; Schloss, Schloss, Wood, & Kiehl, 1986); interventions (e.g., Braaten, 1995; Goldstein & Glick, 1987; Rutherford



et al., 1996; Walker, Colvin, & Ramsey, 1995); and efficacy studies (e.g., Michelson et al., 1983). Prizant and Wetherby (1990) reviewed the literature that addressed the critical interdisciplinary issue of assessment and intervention and the role of the speech/language pathologist. In one example, these authors cited an increase of 11% to 56% in speech referrals in several mental health units when a speech pathologist began to serve these units. The relevancy of the language-behavior connection for schools was explained by Prizant and Wetherby (1990):

Typically these individuals [psychiatric clinic patients] had been identified or "labeled" as emotionally disturbed or behaviorally disordered early in their school. Because of this tendency to separate issues of behavior from communication, it is not uncommon for a child's communication needs to be overlooked if the priority is on dealing with emotional and behavioral problems. This is especially true in school settings where speech-language pathologists have high caseloads. Information about the cooccurrence of these problems is essential for schools to plan an appropriate role in meeting needs of children experiencing multiple problems. (p. 189)

Schloss et al. (1986) described social skill deficits as a "distinguishing characteristic of behaviorally disordered individuals" (p. 1). The importance of interpersonal behaviors was expressed. In their review of social skills research, Schloss et al. found limitations in social skills training that did not

address functional or practical opportunities and were concerned about isolated improvement that was not generalized to other situations. In summary, they questioned the relevancy of social skills interventions.

Sanger, Maag, and Shapera (1994) explained the convergence of social skills and language capabilities as inescapable in the area of functional assessment and social skills training. The significant role of language in the "acquisition and performance of social skills" is not usually addressed in instructional models and represents "a conspicuous lack of emphasis on the role of children's language skills" (Sanger et al., 1994, p. 104). With the acknowledgement of language deficits as a ingredient in the profile of these EBD students, assessment and instruction may require review of current models and rethinking of other means to address these language issues. Larger roles for speech therapists in assessment and interventions is, indeed, one that reechoes in the literature (Camarata, Hughes, & Ruhl, 1988; Giddan, 1991; Prizant et al., 1990; Sanger et al., 1994). Sanger et al. (1994) observed that the prevalence of the comorbidity of language deficits among students identified as EBD support collaborative endeavors between speech/language pathologists and special educators in assessment and intervention. Recommendations in the area of instructional goals in language summarized by Sanger et al. (1994) include: instruction in vocabulary words denoting emotional expression to assist in verbalization of feelings and frustrations, encouragement of use of communication skills

including opportunities within classroom environment, emphasis on classroom rules for all classes and do not assume students are capable of generalizing, facilitate language in naturalistic contexts, incorporate whole language strategies and build on student's strengths.

### Language, Social Skills, and Social Competence

Forgas (1985a) described language as "the most important medium of human social interaction" (p. 255). Moreover, language in situations is critical in the presence for a person's oral language and behavior in specific environments or settings. According to Forgas (1985a), theories that isolate language as pure studies from those situation-based constructs deny the essence of the communication system used by man. Contextual factors include semantic choice, standard and nonstandard usage, cultural conventions, choices and types of requests or "demands" (Forgas, 1985b, p. 15). Forgas also discussed the social impact of stuttering and accents. Bruner's (1974, 1977) observations of mother-child interaction provided evidence of the social acquisition of language and support for the situational nature of language that Forgas explained.

Ladd (1990) identified an immediate interrelationship between the social environment and an individual. Although not specifically targeting language skills, Ladd studied students during the first 2 months of kindergarten as they entered this setting, established relationships with peers, and adjusted to the new school environment. The author surmised

that this early peer acceptance could forge a positive academic experience in juxtaposition to those children experiencing peer rejection.

Social competence relies on language, both verbal and nonverbal. One of the goals of schools is to ensure social competence (Sugai & Lewis, 1996). However, to achieve this social standard requires the rigor in learning the social and linguistic knowledge base and the subtleties of language. This aspect of language was described by Bloom and Lahey (1978) in their comprehensive text on language and language disorders:

There is usually little need to reflect on the behaviors of speech and communication in the everyday course of events, and most people rarely think about language. If one should think about language at all, it would be immediately apparent that it is difficult to separate and define the behaviors that contribute to communication, and something is usually lost of the process. (p. 3)

Bloom and Lahey (1978) described the three interrelating components of language as (a) content, the meaning or semantics of language; (b) form, the code that connects sounds or signs with meaning; and (c) use, the goals or functions of language and the context of language. Use of language extended to (a) goals or functions or "why people speak" (p. 19) and (b) the nonlinguistic and linguistic contexts that determine how the individual understands and chooses different forms. For the function of language, Bloom and Lahey expanded on Halliday's (1975b) function of language as a

social model with the inherent factors of interaction, regulation, and personal control. Determinants of social use of language included "goals of speaker and context of the situation" (Bloom & Lahey, 1978, p. 20). These authors' analysis of language focused on the discrimination individuals make in deciding which form of a message will serve a function. Although routines in language are options (e.g., telephone greetings), the final choice of form rests with the individual.

Owens (1995) looked to a more functional or contextual understanding of language. In his model, pragmatics is the overall organizer or aspect of language which includes syntax, phonology, morphology, and semantics.

Novak (1991/1992) summarized pragmatic social skills and language competence and identified three behavioral categories relevant to language competencies: (a) conversational skills that are expressions of feelings and opinions, including eye contact, voice volume, speech duration, requesting new behavior, denying unreasonable requests, stating opinions, and disagreeing or agreeing with others' opinions; (b) interpersonal problem-solving, which involves strategies for analyzing and resolving conflicts; and (c) cooperative play, which is a conversational response to increase acceptance with others such as greetings, asking for information, or showing approval.

Argyle (1980) delineated specific skills for social competence. Components of skilled social behavior in Argyle's model were (a) perception of other people; (b) recognition of the role of the other person and reading the perceptions accurately; (c) nonverbal communication of interpersonal attitudes and emotions; (d) nonverbal accompaniments of speech, such as verbal utterances that may have multiple meanings, understanding nonverbal signals in dichotomous conversations, and feedback signals; (e) reward or acknowledgments of communication efforts, such as nods or approving noises; (f) plans and feedback in skilled performance; (g) self-presentation; (h) situations and their rules; and (i) sequences of interaction. A social skills training program was designed to address these skills.

That social skills training remains a substantial focus of the curriculum for students with behavioral disorders is apparent from meta-analyses (e.g., Kavale, Mathur, Forness, Rutherford, & Quinn, 1997); Mathur, Kavale, Quinn, Forness, & Rutherford, 1998; Schloss et al., 1986), factors affecting effectiveness (Mathur & Rutherford, 1994), and almost 300 entries in an ERIC search with the descriptors behavior disorder and social skills instruction. Sugai and Lewis (1996) defined a social skills instruction program, based on Gresham's (1982) social outcomes model of (a) positive peer relations/interactions, (b) behavioral skills, and (c) favorable adult judgments and social validity. Moreover, an array of

instructional models and strategies was described in the literature (e.g., Connolly, Dowd, Criste, Nelson, & Tobias, 1995; Goldstein & Glick, 1987; Gresham, 1982; Hazel, Schumaker, Sherman, & Sheldon-Wildgen, 1981; Jones, Sheridan, & Binns, 1993; Maag, 1993; Mathur, Quinn, & Rutherford, 1996; Sugai & Lewis, 1996; Walker et al., 1983).

Social skills training and research have moved in different directions. Gresham (1982) emphasized that positive peer interaction between special education and regular students was limited and that social training may be a requisite for positive interaction. Concerns that students with emotional and behavioral disorders do not perceive the long-range implications of social interaction were indicated in other studies (e.g., Nelson, Drummond, Martella, & Marchand-Martella, 1997; Schloss et al., 1986). Most recently, studies have indicated that maintenance and generalization of social skills, as currently taught, have not demonstrated positive and conclusive results (Mathur et al., 1998; Schnacker, 1995).

Despite efforts to develop competency in social skills, the focus on language deficits, as such, is limited. In one effort, Mathur and Rutherford (1994) attempted a 3- to 4-week intensive language intervention, Positive Talk, to address conversational social skills among incarcerated adolescent girls through the use of a structured social skills instructional format for skill identification, modeling, role playing, transfer, and generalization. Designed to provide regular social opportunities in a natural setting, the

program emphasized positive spoken interactions. Despite the limitations of the study in the number of subjects and opportunities for generalizations, the immediate effects were encouraging as a language intervention for a population with limited social and language competence.

In an early effort, Chandler, Greenspan, and Barenboim (1974) investigated, among other factors, communication skills among hospitalized children, 9 to 14 years of age, with emotional and behavioral disabilities. Through intensive communication using an age and cognitive game format, these exercises were tailored to individual communication deficits. This approach provided limited support for the assumption that improvement in referential communication skills provided some meaningful improvement in social competence.

Social skills assessment and interventions do not necessarily view the language skills of students from the perspective of a speech/language-trained professional. Novak (1991/1992) drew a perceptive conclusion regarding the components of social skills and the relationship of these social competencies and language.

Social competence requires a child to have social skills which are dependent on the appropriate use of language. In addition, a child's competency in conversational skills is dependent on his ability to use language across different parameters and in different social



contexts. . . . Therefore, it is evident that pragmatics plays a major role in a child's social skills. (p. 12)

### Pragmatics

Since Bates (cited in Prutting, 1982) coined the term pragmatics, pragmatics as a component of language has influenced the conceptual framework for speech/language pathology. In a retrospective analysis, Prutting introduced a social-historical interpretation of pragmatism: relating it to American pragmatism in American social history. "Pragmatism was to reinterpret knowledge as function" (Prutting, 1982, p. 124). In contrast, a more traditional, formal approach to linguistics emphasized syntax or word order, grammatical rules, and other formal descriptions of language structure.

Bates (1976) underscored a critical difference in the study of language and the sociology of language and pragmatics. Whereas Chomsky (1969) viewed language from a nativist perspective in which the child has inward or deep structural clues about the language and his speech environment, Bates (1976), preferred another model that presented a different perspective. In this model, "meanings are conveyed through a creative combination of utterances and social settings" (Bates, 1976, p. 412) and are based on (a) syntactic, the relations among signs; (b) semantics, the relations between signs and references; and (c) pragmatics, the relations between signs and human users. Bates (1976) explained as follows:

Pragmatics is perhaps best defined as rules governing use of language in context. As such it does not define a separate kind of linguistic structure or "object." Rather, all of language is pragmatic to begin with. We choose our meanings to fit context and build our meanings onto those contexts in such a way that the two are inseparable, in the same way that "figure" is definable only in terms of "ground." (p. 420)

Bates (1976) identified four elements of pragmatics: (a) propositions, (b) performatives, (c) presuppositions, and (d) conversational postulates with the last three being the pragmatic structures identified as essential rules of use in the oral model. The linguistic intents of these structures are specific. Propositions are, in essence, the "deep structure" (Bates, 1976, p. 427), or internal activity, the signal that triggers some function to be carried out. Performatives are the speaker's intent or goal in the communication (e.g., ask a question). A presupposition is the information that must be known and understood for the meaning to make sense. Conversational postulates or assumptions about the discourse impart subtle messages and may involve intention and/or contradictions. Also, the context, or use of language in a situation, "is an integral part of the structure of language" (Bates, 1976, p. 413).

An acknowledgement of the importance of social aspects of language continues to prevail in the literature in contrast to a theoretical linguistic, syntactic, and semantic orientation. Although a purely sociolinguistic aspect

of language is less relevant to Bates (1976), the pragmatic aspect of language is paramount. Differences in dialect, ethnicity, gender, class, and age, or socio- or group elements in sociolinguistics, were less a factor in Bates's pragmatic model of language. Halliday (1975a) presented a sociosemantic interpretation that explained language acquisition. According to Halliday, language is a communication of culture, and children learn the culture from the patterns of everyday speech. Creaghead and Tattershall (1985) presented the paradigm that children develop a schemata early in their language acquisition, and this schema is the orientation used in new environments, such as schools, in which new and different language formats are introduced and expected.

From another perspective, Prutting (1982) examined the social aspects of language comprehensively and deduced that all forces of language, including pragmatics, semantics, syntax, and phonology, although distinct elements, are "interrelated nevertheless and operate synergistically" (p. 125). Prutting understood Bates's functional or external view of communication and the formalists' (e.g., Chomsky, 1969) internal or structural view of language. To Prutting (1982), pragmatics is another extension of language and included such criteria requisite social and cognitive behavior, functions of language in the context of the speaker, conversational rules in naturalistic interactions, and stylistic variations in context.

Prutting (1982) illustrated the conceptual framework for communication in a Venn diagram integrating the three components of language interactions: (a) social and cognitive knowledge, (b) linguistic rules, and (c) pragmatic rules. This framework was demonstrated in a dyad model of speaker and listener. The dyad could vary by the discourse skill level of the individuals involved and could include nonverbal and paralinguistic behaviors.

Pragmatics as important in social interaction is examined in assessment instruments. Bates's (1974) preliminary efforts to study the language of Italian children as "real speakers and hearers in real situations" (p. 277) rather than as ideal speakers in abstraction may represent one of the earlier efforts to analyze pragmatics and set the groundwork for the study of pragmatics.

To Prutting (1982), pragmatics is the "product of the appropriate use of nonverbal and paralinguistic behavior in addition to verbal behavior" (p. 131). The use of language as a predicate for appropriate social skills was crucial in Prutting's evaluation of pragmatic language. Prutting and Kirchner (1983) designed a substantive instrument, The Pragmatic Protocol, which addressed the school-age child and adult population in a "molecular" (Prutting & Kirchner, 1983, p. 48) analysis of pragmatic language based on a language sample.

Detecting language problems can be elusive. Damico and Oller (1980) and Damico (1985) developed the Clinical Discourse Analysis from a functional, holistic, and naturalistic perspective, using language samples to interpret older-age and children's language. The model for the Clinical Discourse Analysis is based on Grice's (1975) cooperative principle of conversation. This model identifies a set of conversational postulates to ensure successful communication, which includes information that is precise and informative, truthful and substantive, and relevant and appropriate.

Damico's (1985) model purported to examine discourse processes that could reveal language disabilities in children from early childhood to adulthood. In fact, Damico and Oller (1980) studied students in an English as a second language program and, using pragmatic indices, identified language disorders in this bilingual population.

Damico's (1993) Clinical Discourse Analysis employs a descriptive analysis of a language sample. Damico expanded the methods to collect data from only a language sample to include (a) probe procedures to elicit language behavior, (b) behavior sampling to analyze some required task, (c) descriptive rating scales and protocols to assess the students according to reliable, valid criteria, and (d) a series of questions to distinguish between extrinsic factors or intrinsic cognitive-linguistic variables.

The Test of Pragmatic Language (Phelps-Terasaki & Phelps-Gunn, 1992) was designed to yield an overall pragmatic standardized score and

grade/age levels based on specific items rather than on a language sample. Limitations in analysis of core areas of pragmatics, standardization, and validity concerns are reported (Ochoa, 1995; Wilkinson, 1995).

Other early efforts to analyze pragmatics were reported in the literature, but in a less formalized approach than in the Prutting and Kirshner (1983), Damico (1985), and Phelps-Terasaki and Phelps-Gunn (1992) instruments. These efforts included Johnson, Johnston, and Weinrich (1984) (sample dialogue); Roth and Spekman (1984) (a language sample to include communication intentions, presupposition, and social discourse); and Simon (1984) (a language sample model for functional-pragmatic evaluation for auditory communication skills for students with severe language disorders and emotional disabilities). Miller (1978) recommended a brief half-hour interaction for early childhood evaluations based on Bates's works. This preschool language intervention, child-centered, interactive play model provided an analysis and description of the disorders, language intervention, and supervised clinical training for pathologists. Selman and Demorset (1984) introduced a model based on communication style that classified behaviors and designed interventions that encouraged social interaction in various social settings. Creaghead (1984) developed a language sample technique to identify specific communication intents and devices for school-age children; Carpenter and Strong (1988) used this model in their study of preschool children.

Creaghead and Tattershall (1985) focused an informal assessment instrument on students' ability to make predictions, establish conversation, understand directions, and comprehend nonliteral language to operate in new situations.

Muma's (1998) recent text recapitulated the importance of pragmatics in language evaluation, defined pragmatics in purely interpersonal communication terms, and provided an overview of the elements in a pragmatic analysis. Muma acknowledged the multiple dimensions of pragmatic activities as well as appreciating the importance of affect, the context of different types of communication, and the multiple meanings in communication as part of the context, content, and culture.

### Language, Pragmatics, and Children and Youth

#### With Emotional Behavior Disorder

The cooccurrence of communication of psychiatric disorders (e.g., Baker & Cantwell, 1982a, 1982b, 1985, 1987; Baltaxe & Simmons, 1988, 1990; Beitchman, Nair, Clegg, Ferguson, & Patel, 1986; Camarata, Hughes, & Ruhl, 1988; Cantwell & Baker, 1980, 1987, 1991; Cantwell, Baker & Mattison, 1979, 1980; Gualtieri, Koriath, Van Bourgondien, & Saleeby, 1983), delinquent behaviors (Cozad & Rousey, 1966; Falconer & Cochran, 1989), and maltreated children (Coster & Cicchetti, 1993) has been documented over the past 4 decades. Baltaxe and Simmons (1990) concluded that over 50% of children and adolescents with "speech and

language disorders seen by communication disorder specialists . . . also have diagnosable psychiatric disorders" (p. 29). A discussion of the cooccurrence of language and emotional behavior disorders continues to emerge in the education literature (Donahue, Cole, & Hartas, 1994; Griffith, Rogers-Adkinson, & Cusick, 1997; Warr-Leeper, Wright, & Mack, 1994).

The links between language and EBD were discussed in a literature review by Donahue et al. (1994). They concluded that despite the variations in definitions and differences among students with EBD, whether they were aggressive, conduct-disorder, attention disorder, or withdraws, a common portrait emerged that a "startling majority" (Donahue et al., 1994, p. 244) of students exhibited a cooccurrence of language and speech disorders, although no causal explanations could be deduced. In fact, students in different categories of EBD may exhibit different patterns of language deficits. Another foci of the review emphasized a general lack of coordinated assessments and interventions that would integrate these developmental areas of language and EBD. Recommendations included: collaborative models for assessment and education and an awareness among professionals and parents of a comorbidity among language and EBD.

Moreover, although many youth are referred for behavior concerns, the cooccurrence is often not recognized because of the level of sophistication or design of referral patterns. From a medical perspective, Baltaxe and Simmons (1990) noted a lack of referrals, either to



psychiatrists from communication specialists or from psychiatrists to communication specialists. Interestingly, although family and mental health referrals are considered part of the referral process, the school as a vehicle for referrals was not mentioned as a potential source in the Baltaxe and Simmons study. In light of these venues for referral, the more important issue may, indeed, be the intrinsic design of the referral-assessment system. Efforts that address these issues of language and behavior appear to be minimal. Baltaxe and Simmons (1990) perceptively observed:

What is diagnosed may, at times, be more a function of the professional consulted than of the disorder itself. Additionally, communication problems are often not viewed in the context of total behavior or of the high probability of serious coexisting psychiatric problems. The issue of diagnosis is significant, because communication handicaps may be the key element in the development, diagnosis, and, in some instances, treatment of the psychiatric disorder. (pp. 18-19)

Language, human behavior, and social interaction are interconnected with pragmatics and semantics, and, thereby, the two disciplines, speech-therapy and psychiatry-psychology, may be interconnected; however, they may be viewed, in practice, from different disciplines, which may not always appear together as in an ideal multidisciplinary assessment setting.

Language and psychiatric/behavior problems. The landmark longitudinal investigation conducted at the University of California, Los Angeles, Neuropsychiatric Institute in a speech/language clinic which began over a decade ago (Baker & Cantwell, 1982a, 1982b, 1985, 1987; Baker, Cantwell, & Mattison, 1980; Cantwell & Baker, 1977, 1980, 1987, 1991; Cantwell et al., 1979, 1980; Mattison, Cantwell, & Baker, 1980a, 1980b) confirmed a relationship between language and behaviors. This epidemiological series was reported at different stages throughout the study. In the final population sample of almost 600 children, with a mean age of 5 to 6 years and inclusive of 3 through 16 years, language pathology was significant. The study also described the psychiatric and behavioral indicators associated with speech and language delays; the results were conclusive for the relationship and implications of addressing the behavioral, social, and educational needs of the young people as they interacted with peers and adults. Speech, language, and psychiatric evaluations were completed on each of the subjects; medical or biological factors were not indicated. In an early phase of the study (Cantwell & Baker, 1980), with 100 children, a positive and strong correlation of psychiatric disorders and speech/language factors emerged.

Another preliminary examination of the differences in language-delayed psychiatric populations and nonpsychiatric population (Baker & Cantwell, 1982a) defined basically two groups of children with

speech/language delays compared to the nonlanguage-delayed group: the pure speech group, the speech and language group referenced as "autistic retarded," and language only (Cantwell & Baker, 1980, p. 170). Caution in generalizing the findings to average populations was urged, because close to 50% of the language-delayed population scored 70% or below on standard intelligence measurements. However, this low-functioning group became dwarfed in the larger cohort of 600 children.

In studying the results from the final, more average-intelligence cohort, Baker and Cantwell (1982b) concluded that psychiatric disorder was more common in the language impaired children than in the purely speech impaired children. Attention deficit disorder was the most frequent disorder in both groups, but oppositional disorder was more prevalent among the language-disordered children (Baker & Cantwell, 1982b) and various anxiety disorders (Cantwell et al., 1980) among the students with emotional disorders.

Based on the criteria of the Diagnostic Manual-III of the American Psychological Association, almost half the children in the Cantwell and Baker (1991) series had some psychiatric disorder; behavioral disorders (attention deficit, conduct disorders, and oppositional disorder); physical disorders (eating, stereotype, organic brain syndrome); and emotional disorders (separation-anxiety, avoidance, over-anxious, adjustment). Emotional disorders were the most common type of disorder among all

groups. Behavioral disorders were prevalent and most common in speech/language and pure-language-disordered groups; characteristics common to the language group included only short attention span, impulsive behavior, and oppositional behavior.

Finally, with the full cohort of almost 600 children, Baker and Cantwell (1987) and Cantwell and Baker (1991) concluded that psychiatrically ill children demonstrated significantly more disorders in speech and language than did nonpsychiatrically ill children. A 50% prevalence rate in this speech/language-disordered population was reported (Cantwell & Baker, 1991), with external or overt or disruptive behavior and internalizing or emotional behavior as the most recurring diagnoses.

Significant adults, parents and teachers, provided additional insight. Baker et al., (1980) identified a diversified range of behavior symptoms revealed in teacher and parent ratings that were categorized by (a) hyperactivity syndrome, (b) developmental phenomena, (c) conduct disorder, (d) relationships, (e) somatic complaints, and (f) emotional symptoms. Both teachers and parents identified more behavioral factors in children with speech and language problems than in those with pure speech problems. The focus of these ratings was on behavior.

Conclusions derived from Cantwell and Baker's (1991) studies include: "older children with disorders of language expression, comprehension, or processing" (Baker & Cantwell, 1982b, p. 122) are at

risk for psychiatric disorder with oppositional, conduct, and hypomanic disorder most common. Younger children with speech and language disorders presented a 45% prevalence for psychiatric illness, most commonly attention deficit avoidant, separation anxiety, opposition, adjustment, and conduct disorder. Children with only speech disorders are less likely to develop psychiatric disorder (Cantwell & Baker, 1991).

Following the University of California at Los Angeles study, other research addressed similar concerns of language and behavior delays. With kindergarten children (Beitchman, Hood, Rochon, & Peterson, 1989; Beitchman, Nair, Clegg, Ferguson, & Patel, 1986; Beitchman, Peterson, & Clegg, 1988) and preschool children (Beitchman, Tuckett, & Bath, 1987; Love & Thompson, 1988) a significant speech/language and attention-deficit correlation was reported. Beitchman et al. (1986, 1988a) found the Cantwell and Baker clinic population to be a skewed and limited sample and focused their research on a more general population. These researchers also found a high risk between language disorders and emotional disturbance. Love and Thompson (1988) reversed the assessment process in the presenting problems. In a preschool population suspected of psychiatric concerns, speech/language was assessed. A 48% dual diagnosis of attention deficit and speech/language resulted. In Love and Thompson's (1988) population, the following language and behavior deficits were demonstrated in students with both behavior and language deficits: (a) inappropriate

initiation of conversations, (b) abruptness in change of topic, (c) unconnected thoughts, (d) lack of sustained eye contact, (e) missed turns to enter conversation, or (f) missed adaptation of message to particular listener. Frequency of parent-child conflicts was also reported in students who presented speech/language and behavioral problems.

Earlier, Gualtieri et al. (1983) confirmed a relationship between severe behavior disorders and communication disabilities in a group of students 4 through 13 years of age. Gualtieri et al. assessed students with psychiatric problems for speech/language problems. The most common psychiatric diagnoses were attention deficit disorder with hyperactivity, conduct disorder, and attention deficit disorder with conduct disorder.

In studies of preschool children with communication disorders, Baltaxe and Simmons (1988) identified 20% of the children with behavioral attention deficit conduct disorder and oppositional behaviors and 6% with emotional disorders such as anxiety disorder or posttraumatic stress syndrome. Chess and Rosenberg (1974) recognized that most speech referrals peak at 4 to 5 years of age and that the association with psychiatric concerns can be as high as 25%. They include learning difficulties, hyperactivity, hard and soft neurological signs, and behavioral disorders in the evaluation. Behavioral issues were identified by parents in 64% of the cases. Hyperactivity was diagnosed in 19% of those identified with behavioral issues.

Risk factors. A pattern of risk factors for this dual diagnosis of language and behavior disorders also emerged from these studies. Although Cantwell and Baker (1991) found no definitive differences in the socioeconomic level among the children, a variety of associated risk factors was delineated. For students with behavior/aggression and speech/language disorders these variables included male gender, lower socioeconomic status, presence of other development delays, perinatal and neuropsychological problems, otitis media, oral abnormalities, environmental deprivation, and maltreatment. Generally, the group diagnosed with psychological behaviors came from non-Caucasian, single, or divorced families. In general, social class comparisons (Baker & Cantwell, 1982a) presented no significant differences except that the educational levels of the parents of the speech-only group were higher.

Risk factors were also presented in other studies. Coster and Cicchetti (1993) proposed that socioeconomic factors systemic to a family can impact communication and behaviors. Developmental factors are critical to the development of language, but family and domestic influences and events, whether during infancy or later, and especially in maltreated children, cannot be ignored as variables affecting language development and socioeconomic class.

## Research Studies Specific to School-Age Children

Language is essential for social interactions, successful interrelationships, and the ability to comprehend and to express ideas and information. The social skills literature that focused on school issues for emotional behavior disorder students addressed many of these communication needs. For instance, Braaten (1995) delineated 44 specific developmental criteria that allow a student to demonstrate verbal and nonverbal skills that "enable him/her to appropriately meet [his/her] own needs and affect others in positive ways" (p. 12). Others (Aiken & Martin, 1994; Bullis & Gaylord-Ross, 1991; Mack & Warr-Leeper, 1992) stressed the importance of language competence for success and survival in the workplace. In all fairness, one early study (Weber, 1965), which addressed the speech and language abilities of emotionally disturbed children, is recognized as a precursor to the research presented. This informal investigation of a residential psychiatric population of 4- to 12-year-olds, lacked the rigor of standardized instruments, statistical analysis, and conclusive results. The study surmised that children with "severe speech and language retardation are most likely to fall into the primary behavior disordered group" (Weber, 1965, p. 419).

Although the body of research is not extensive, a pattern emerges from these studies on language, including pragmatics, and young people identified as emotional behavior disorder. Pragmatics as fundamental to



successful peer and adult interaction and a prerequisite for social skill interventions was studied by McDonough (1989). McDonough examined the quality of language with which children performed the functions of language based on the Grice (1975) cooperative communication model. The 8- and 9-year-old students identified with emotional handicaps had a mean length utterance of less than their nonhandicapped peers. These students demonstrated errors in the (a) "relation" characteristic for poor topic maintenance, (b) situational inappropriateness, and (c) inappropriate speech style. McDonough concluded that pragmatic categories for successful communication included length of utterance, thoughtful delay before responding, and editing of communication attempts during conversation.

Novak (1991/1992) utilized the Prutting (1982) pragmatic protocol based on Grice's (1975) model to analyze the pragmatic parameters of communication in students identified with emotional behavior disorder compared to normal children. Of particular interest in this study was the differential diagnosis of externalizing and internalizing behaviors based on the Child Behavior Rating Scale (Achenbach, 1988) and communication disorders. On the pragmatic language tool, language differences were perceived to be significantly poorer in groups of children with behavior disorders, regardless of ethnicity or gender; nonverbal and paralinguistics considerations, such as vocal intensity, eye gaze, and facial expression were addressed. Among the African-American population, the need for closer

cultural attention in the evaluation of some components of pragmatics was suggested. Most notable was that the externalizing group had difficulty with extraneous movements in the nonverbal parameter and the internalizing group had problems with topic introduction. No statistically significant differences were found between the two internalizing and externalizing subgroups. In the verbal section, the group with language disorders exhibited problems with specificity, accuracy, cohesion, and repair/revision of communication utterances; the group with behavior disorders had difficulties with topic maintenance, topic initiation, quantity/conciseness, and specificity/accuracy of the message presented.

Recognizing the paucity of research for students with mild/moderate behavior disorders and language characteristics, Ruhl, Hughes, and Camarata (1992) studied youth in public school resource settings, ages 9 to 16 years, and found that students had difficulty with expressive and receptive language. Ruhl et al. (1992) concluded that these students with mild/moderate behavior disorders should be considered "at risk" (p. 165) for language disorders. In a similar study, Camarata et al. (1988) found that 71% of students with mild/moderate behavioral disorders were also at risk for language disorders. Those language deficits that were presented were of the "subtle kind" (Camarata et al., 1988, p. 172) compared to the more defined psychosis in the Baltaxe and Simmons (1988) study.

Whereas McDonough (1989) and Baltaxe and Simmons (1988) underscored conversational factors, Ruhl et al. (1992) studied this mild/moderate population for comprehension of lengthy sentences, word use, and higher use of words. Rosenthal and Simeonsson (1991) studied the communication performance of adolescents for their ability to respond to referent information. Based on a single language sample instrument, Rosenthal and Simeonsson (1991) concluded that emotionally disturbed students are "both less informative and less effective than their non-disturbed peers" (p. 196). Of particular importance is that these subtle, but relevant communication skills can best be detected through specific testing. Emotionally disturbed children compared to normal children demonstrated poorer communication skills and lacked significant developmental change as they reached adolescence. Earlier, Courtright and Courtright (1983) concluded that language-disordered children are significantly less sensitive to emotional clues in language. Griffith et al. (1997) observed that students with more external problems were less able to benefit from verbal interventions, to follow directions, or to comprehend rules, whereas students with more internalizing behavior problems were less able to participate in conversation with others.

To further explore the relationship of behavioral problems and language, Rogers-Adkinson (1994/1995) and Griffith et al. (1997) attempted to identify language disorders in students with emotional

behavior disorder who attended day and residential psychiatric programs. Moderate to severe language disorders were found in 40% of the students who scored two or more standard deviations below the mean, and 83% scored one standard deviation below the mean for syntax, semantics, and phonology. On the Test of Pragmatic Language (Phelps-Terasaki & Phelps-Gunn, 1992), perhaps the first reported use of this instrument in the literature for this population, 55% of the students scored at least one standard deviation, and 5% scored two or more standard deviations from the mean. Distinctions between the two groups were not significant nor were the teachers' perceptions based on behavior rating scales. Pragmatics and physical and fear symptoms, as reported on the Behavior Evaluation Scale (McCarney, Leigh, & Cornbleet, 1983), were the only factors that indicated a relationship.

Mack and Warr-Leeper (1992) and Warr-Leeper et al. (1994) studied the presence of language impairment and behavioral/emotional behavioral disorders in an adolescent residential population. Language problems were found in these adolescent boys, who had not been diagnosed for speech and language problems at earlier ages. In this study, standardized tests were administered to determine language proficiency. An 80% rate for language disorders was reported, with listening skills particularly low. Other low-functioning skills included understanding abstract language concepts, language without contextual support, and language that required rapid

processing. Warr-Leeper et al. (1994) acknowledged the limitation of a control study.

Keefe, Hoge, Shea, and Hoenig (1992) compared an elementary-age normal group of students with comparable age/cognitive ability to students with learning disabilities and behavior disorders for their language competencies. The students with behavior disorders were significantly below level for spoken language, listening, speaking, and syntax, and the students with learning disabilities were significantly below on all language subtests. The students with behavioral disorders had difficulty with constructs such as generals, the categorization of words, and malapropisms, the misuse of words.

Deficits in language were also significant in a study of delinquent adolescent males (Davis, Sanger, & Morris-Friehe, 1991). Thirty-eight percent of delinquent males compared to 9% of the nondelinquent males had significant discrepancies that qualified for language services according to discrepancy criteria.

Miniutti (1991) compared inner-city students with learning disabilities and behavior disorders to those students with no identified disability for global language deficiencies. Specific attention to pragmatics was not addressed in Miniutti's study. No language differences were detected for the students with learning or behavioral concerns only. More behavior deviance was indicated for the language-deficient group than for

the language-competent group. The Behavior Evaluation Scale-2 was used by Miniutti.

Often, the subtleties in language are undetected in people with language disorders. As Warr-Leeper et al. (1994) revealed, many language disordered youth remain undiagnosed. As such, the call for language evaluation to be a routine component of an assessment for students with behavior disorders was recommended (Damico, 1985; Davis et al., 1991; Warr-Leeper et al., 1994). This longstanding observation is further documented in an analysis of national data over 10 years ago by Casby (1989) who reported that speech-language service as a related service among emotionally disturbed youth was only 9%. This paucity of services for speech-language as a service for students with emotional disturbance emphasized the necessity to address programming, identification, and appropriate implementation of interventions.

The Comprehensive Assessment of Spoken Language (Carrow-Woolfolk, 1999), is a norm-referenced instrument that assesses receptive and expressive language including categories of lexical/semantic, syntactic, supralinguistic (inferential, nonliteral, ambiguous language), and pragmatic language and judgement. The knowledge and use of pragmatic language rules are applied in vignettes which assess the ability to recognize and use appropriate functional language.

As part of the development of the Comprehensive Assessment of Spoken Language, Carrow-Woolfolk (1999) studied elementary age students who were identified as EBD and were given the test. In the clinical sample, oral language was significantly below the control group. In all, approximately 84% of students with emotional disturbance demonstrated oral language deficits with concerns especially noted in pragmatic areas (K. Williams, personal communication, November 6, 1999).

The assessment instruments used in the research studies were standardized tests and rating scales used in diagnostic battery for intelligence, academic achievement, speech-language, auditory discrimination and processing, language, and behavior (W. Bergman, personal communication, April 10, 1999). Students in the studies cited were generally in the average range of intellectual functioning. An overview of the research studies including ethnicity, socioeconomic status, and percentage of cooccurrence of language disorders and emotional/behavioral disorders is outlined in Table 1. Psychological and emotional behavioral diagnosis for the students in the studies is delineated in Table 2. Language disorders denoted in the studies are summarized in Table 3.

### Implications Deduced From the Research Literature

The research studies, both the early medical and speech-clinic-based studies, as precursors to the more recent studies investigating the language of school-age students, provided insight into the role of language, behavior,

and social relations. Many of these studies called for greater attention to language disorders as part of an interdisciplinary assessment.

Table 1

Cooccurrence of Emotional/Behavioral Disturbance (EBD) and Language Disorders: Research Studies With Children and Youth Identified With EBD

Study	Years of Age	#	Setting	Control	IQ	SES Reported	Diagnosis	Ethnicity Reported	Cooccur- ence %
Gualtieri, Koriath, Van Bourgondien, and Saleeby (1983)	4-13	26	psychiatric hospital (residential)	no	60-104	yes	SED	yes	50.0
Beitchman, Peterson, and Clegg (1988)	5	142	urban/suburban kindergarten	yes	n/a	yes	==	no	48.7
Camarata, Hughes, and Ruhl (1988)	8-12	38	public school	no	67-126	no	BD	no	71.0
Falconer and Cochran (1989)	14-18	53	prison	no	68-122	no	JO	no	--
McDonough (1989)	8-9	44	urban school district	yes	average	no	ED	no	50.0
Cohen, Davine, and Meloche-Kelley (1989)	5-12	37	psychiatric outpatient clinic	yes	80+	no	E/BP	no	28.0
Cantwell and Baker (1991)	1-15	600	urban university speech/ language clinic	--	--	yes	P BD	no	50.0
Miniutti (1991)	6-11	81	urban school district	yes	--	yes	BD	yes	81.0
Novak (1991/1992)	7-13	66	urban school district	yes	85+	no	SED	yes	--
Keefe, Hoge, Shea, and Hoenig (1992)	8-12	41	suburban special education cooperative	yes	80-139	no	BD	no	--
Mack and Warr- Leeper (1992)	9-13	20	psychiatric institution	no	low	no	BD	yes	80.0
Ruhl, Hughes, and Camarata (1992)	9-16	30	public school special education	yes	average	no	ED	no	--
Rogers-Adkinson (1994/1995)	6-12	41	resident and day program	yes	average	no	SED	yes	83.0
Carrow-Woolfolk (1999)*	7-10	31	n/a	yes	==	yes	ED	yes	84.0**



Note. \*These results represent a validity and reliability study for the instrument, Comprehensive Assessment of Spoken Language (Carrow-Woolfolk, 1999). \*\*K. Williams, personal communication, November 6, 1999. SES = socioeconomic status, SED = severe emotional disorder, JO = juvenile offenders, BD = behavior disorder, ED = emotionally disturbed, E/BP = emotional and behavior problems, P = psychiatric.

Table 2

Most Frequently Cited Psychological Disorders in Students With a  
Cooccurrence of Emotional Behavior Disorder and Speech/Language  
Disorders Identified in Selected Research Studies

Reference	Disorder
Gualtieri, Koriath, Van Bourgondien, and Saleeby (1983)	Attention deficit disorder with hyperactivity Conduct disorder Attention deficit disorder with hyperactivity and conduct disorder
Beitchman, Nair, Clegg, Ferguson, and Patel (1986)	Emotional (neurotic) disorders Attention deficit disorder
Beitchman, Peterson, and Clegg (1988)	Behavior disturbance usually attention deficit disorder Psychiatric stressors
Beitchman, Hood, Richon, and Peterson (1989)	Attention deficit disorder
Miniutti (1991)	Covert behaviors
Cantwell and Baker (1991)	Attention deficit disorder Oppositional disorder Conduct disorder Anxiety disorder Anxiety and adjustment disorders Affective disorders Parent-child problems
Mack and Warr-Leeper (1992)	Conduct disorder Oppositional/defiant disorder
Rogers-Adkinson (1994/1995)	Interpersonal difficulties Inappropriate behaviors Physical fears

Note. Studies did not necessarily include both language and psychological diagnoses.

Table 3

Most Frequently Cited Language Disabilities in Students With  
Cooccurrence of Emotional Behavior Disorder and Speech/Language  
Disorders Identified in Selected Research Studies

Reference	Skills
Cantwell and Baker (1991) (3-year study)	Expressive language disorder Expressive language and language processing disorders Receptive and expressive language disorder and language Processing disorder
Camarata, Hughes, and Ruhl (1988)	Syntax and morphological Semantics Expressive language
Falconer and Cochran (1989)	Semantics Divergent and convergent thinking
Novak (1991/1992)	Nonverbal movements Topic maintenance Inappropriate responses Informal conversational situations Linguistic nonfluency Specificity/accuracy Intonational contour
Miniutti (1991)	Expressive language (syntax)
Keefe, Hoge, Shea, and Hoenig (1992)	Syntax (sentence combining) Semantics (vocabulary, word ordering)
Mack and Warr-Leeper (1992)	Receptive and expressive language Abstract multiple meanings Complex linguistic structures
Ruhl, Hughes, and Camarata (1992)	Expressive language Syntax, grammar, semantics

Note. These descriptors reflect the nomenclature of the instruments used in the studies. Studies did not necessarily include both language and psychological diagnoses.

Prizant et al. (1990) reviewed the literature that addressed the critical interdisciplinary issues of assessment and intervention for communication and language for children and adolescents at risk of emotional and behavioral disorders. They concluded that the challenges for speech and language consultants contribute significantly to the diagnostic process. In one example, Prizant et al. cited an increase from 11% to 56% in referrals in several mental health units when a speech pathologist served these units. Prizant et al. (1990) explained:

Typically these individuals [psychiatric clinic patients] had been identified or "labeled" as emotionally disturbed or behaviorally disordered early in their school career. Because of this tendency to separate issues of behavior from communication, it is not uncommon for a child's communication needs to be overlooked if the priority is on dealing with emotional and behavioral problems. This is especially true in school settings where speech-language pathologists have high caseloads. Information about co-occurrence of these problems is essential for schools to play an appropriate role in meeting all the needs of children experiencing multiple problems. (p. 189)

Many of these research studies called for recognition of the correlation between language deficits and behavioral disorder. However, Ruhl et al. (1992) were cautionary, because psychiatric assessments are usually language-based and language deficits may not have been ruled out as

a diagnosis. In studying delinquent populations, Falconer and Cochran (1989) also expressed concern about definitive conclusions regarding the relationship of language and behavior.

The cooccurrence of language and behavior problems echoed in the literature. The conclusions of longitudinal research supporting this hypothesis are described in a conclusive and extensive text (e.g., Cantwell & Baker, 1991). Cohen, Davine, & Meloche-Kelly (1989) emphasized that, too often, students with emotional behavioral disorder have undiagnosed language difficulties and appropriate interventions for social-emotional and cognitive needs may not be addressed. In addition, the need for speech/language screenings and referrals in an interdisciplinary model were cited most frequently as concerns (Baltaxe & Simmons, 1988; Camarata et al., 1988; Cohen et al., 1989; Davis et al., 1991; Falconer & Cochran, 1989; Giddan, 1991; Gualtieri et al., 1983; Lord, 1980; Prizant et al., 1990).

Significant issues relevant to language disorders and behavior and emotional disturbances were repeated in the literature. These pertinent studies advocated for a required or systematic speech/language assessment (Cohen et al., 1989; Gualtieri et al., 1983; Keefe et al., 1992; Ruhl et al., 1992; Warr-Leeper et al., 1994); specialized tests to ascertain these language-based problems (Cohen et al., 1989; Gualtieri et al., 1983; Rosenthal & Simeonsson, 1991); close observations of target behaviors

(Lord, 1980); functional, pragmatic assessment models (Camarata et al., 1988; Coster & Cicchetti, 1993; Falconer & Cochran, 1989); language and cognitive problem-solving abilities (Coster & Cicchetti, 1993; Muma, 1978; Prutting, 1982); specific language information needed for older child and adolescent language development and disorders (Nippold, 1993); intervention (Cozad & Rousey, 1966; Gualtieri et al., 1983; McDonough, 1989; Prutting, 1982; Ruhl et al., 1992); interventions with a family focus (Dodge, 1994; Simeonsson, 1973; Theodore, Maher, & Prizant, 1990); disorders of language integral to the development of personality (Gualtieri et al., 1983); assessments and interventions with verbal demands and psychological stress (Cohen et al., 1989); and language exacerbation of behavior problems (Cohen et al., 1989; Giddan, 1991).

Some studies addressed the school as a viable reference point for assessment. Prizant et al. (1990) recognized the school as a vehicle to initiate and address the language problems among students with behavioral disorders. Teacher involvement in the referral-language-assessment process was suggested by Bauer and Sapona (1988), Damico and Oller (1980), and Ruhl et al. (1992).

Prizant et al. (1990) outlined cogent questions that explained the mutuality of language and psychiatric concerns:

1. What is the natural history (i.e., progression of the development of emotions/behavioral disorders in children with communication disorders?

2. How does a communication disorder affect a child's perception of his/her environment, and do psychosocial stressors affect communication growth?

3. Can specific causal relationships between specific communication disorders and emotion/behavioral disorders be identified?

4. In a cumulative risk model, which risk factors are most predictive of emotional and behavioral functioning in communicatively disordered children? (pp. 189-190)

Doherty and Hummel (1990) underscored the interrelationship of speech, language, and communication with the child in mental health and psychology settings. Doherty and Hummel urged attention to biodynamics, psychodynamics, and sociodynamics to better understand the manifestation of the behavior to design interventions. They concluded that "to provide quality clinical care, it is incumbent on all disciplines to recognize the strengths and limitations of their own models to explore models that offer insight and alternative considerations for diagnosis and treatment" (Doherty & Hummel, 1990, p. 41).

From this literature review, general issues of particular relevance include (a) links between behaviors of students with emotional and behavioral disorders and language disorders, (b) concern for more multidiscipline and integrated models for assessment and referral, (c) multiple disciplinary approaches to interventions and treatment, and (d) the prevalence in the schools of a dual diagnosis of emotional disturbance as defined by IDEA (1990, 1997) and speech/language disorders.

The purpose of this study is to identify the cooccurring disabilities of emotional/behavioral disturbance and speech/language disorders among those students identified as emotional behavior disorder who are being served in the public schools. Students were identified by (a) ethnicity and (b) socioeconomic status. Although research (e.g., Cantwell & Baker, 1991; Prizant et al., 1990) supports the cooccurrence of language deficits and emotional behavior disorder, the prevalence of the cooccurring disability in the schools is not documented in the literature. Descriptive information relevant to the dual diagnoses is provided, and statistical analysis examines the variables of ethnicity and socioeconomic status in this population.

## CHAPTER 3

### METHODOLOGY AND PROCEDURES

The review of literature demonstrated two relationships associated with emotional behavior disorder (EBD) and speech/language disorders. First, research studies for nearly a decade reported the cooccurrence of speech/language disorders in the EBD population (e.g., Cantwell & Baker, 1991; Carrow-Woolfolk, 1999; McDonough, 1989; Novak, 1991/1992). Second, other research (Prizant et al., 1990; Prizant & Wetherby, 1990) reported a lack of routine involvement of speech/language therapists in the evaluation of the emotionally disordered (ED) population.

The purpose of this study was to identify the cooccurring disabilities of ED and speech/language disorders among those students identified with EBD who were being served in the public schools. The students were identified by their (a) ethnicity and (b) socioeconomic status. Those students identified as ED and speech impaired, as defined by the eligibility criteria under The Individuals With Disabilities Education Act (IDEA, 1990, 1997) were included in the study. Students with learning disabilities were not included.



## Research Problems and Hypotheses

### Problem 1

The problem of this study was to determine the relationship between speech identification (yes, no) and ethnicity (Caucasian, African-American, Hispanic) among students identified as ED in the public schools.

### Problem 2

A second problem of this study was to determine the relationship between speech identification (yes, no) and socioeconomic status (economically disadvantaged, not economically disadvantaged) among students identified as ED in the public schools. Economic status was based on the Pupil Evaluation Information Management Systems (PEIMS) data delineated by family income that would qualify students for free lunch programs. Those students receiving free lunch were defined as economically disadvantaged.

### Problem 3

This problem is included to investigate the existence of a relationship between socioeconomic status and ethnicity in the population of students identified as ED and oral language disordered.

Hypothesis 1--Speech identification and ethnicity are not independent as determined by a chi-square test of independence.

Hypothesis 2--Speech identification and socioeconomic status are not independent as determined by a chi-square test of independence.

Hypothesis 3--In the sample of students with ED and language disabilities, ethnicity and socioeconomic status are independent as determined by a chi-square test of independence.

Finally, a descriptive analysis of the ED population was examined by comparing frequency counts of the sample of ED students having or not having a speech disorder.

### Setting

Subjects for this study were the students in the public schools of Texas serving all geographic venues (urban, suburban, and rural). Only students with ED based on identification criteria for IDEA (1990, 1997) were selected. Students with dual ED and learning disabilities were not included in this research. The sample was obtained from the Texas database for pupil demographic information, the PEIMS for the 1998-1999 academic year. This public-information database included information by exceptionality (e.g., ED, speech), ethnicity, and socioeconomic status. The Texas Education Agency, Division of Communications and Public Information statisticians compiled the archival data from the PEIMS database. Communication requesting this information is in Appendix B.

Students in Grades 2 through 6 were included in the sample because these grades are most common for identification of speech problems. Once

students enter middle and junior high school, many students are dismissed from speech services as determined by committees who reviewed their individual education plans and determined the need and appropriateness of services (W. Bergman, personal communication, April 20, 1999). Moreover, students usually younger than Grade 2 are still in the formative stages of language processing (Wiig & Semel, 1980) and, therefore, are not included in this research.

### Subject Selection

The subjects used in this study were from 673 districts in Texas who reported students identified with ED and speech disorder. The subjects in this study were anonymous and given by count only as listed in the PEIMS report in Appendix C. The trace count of Asian and Native-Americans precluded the inclusion of this data in the study to prevent any skew during statistical analysis. Although 40 subjects would be considered as representative for a significance in the chi-square model used, the total number of subjects for the problems of ethnicity and socioeconomic status was in the hundreds. For problem 3 focusing on only ED and oral language disorders, the total count was 201 subjects. Forms relevant to human subject approval for the University of North Texas are included in Appendix A.

## Instrumentation

Information on count of students identified for this study was provided in the PEIMS database (see Appendix C). Since additional information was needed, letters and response cards were sent to Directors of Special Education in the districts meeting specific criteria to request their permission to participate in the study (see Appendix D). Additional information from speech therapists was requested in a letter and survey (see Appendix E). The purpose of this data collection was to further distinguish students identified with ED and speech disabilities for oral language disorders. These speech-related disorders are not differentiated in the PEIMS reporting system. Therefore, speech therapists in independent school districts were surveyed to identify the oral language disorders among students identified as ED and speech impaired. The criteria for district selection for this survey was determined by PEIMS reporting data that included at least a total of 15 students identified with ED and a speech impairment with no more than two groups "masked." The Texas Education Agency PEIMS's data does not report the actual number of students in a category if that category contains between one and five students. This procedure is termed "masking" and its purpose is to ensure confidentiality (P. Werleich, personal communication, April 14, 1999).

## Data Collection

Data collection included a written request to the Texas Education Agency, AD-Hoc Reporting System, to request PEIMS information needed in this investigation. The survey was sent to districts which met the criteria during the 1998-1999 academic year. Letters and response cards were sent to 11 special education directors requesting permission to survey their speech therapists. See Appendix D for the letter and response card to directors of special education. See Appendix E for letter and survey to speech therapists.

## Data Analysis

The research questions posed in this study were to determine the prevalence of a cooccurrence of ED and speech disorders among students with ED in Grades 2 through 6. Also identified in this study was the relationship among the ED population for speech disorders and ethnicity as well as speech disorders and socioeconomic status. The three hypotheses of this study were tested by chi-square tests of independence.

The first test compared speech (yes, no) and ethnicity (Caucasian, African-American, Hispanic). If calculated chi-square test statistic is greater than the chi-square critical value ( $df = 3$ ,  $\alpha = .05$ , critical value = 2.353), there is a significant relationship.

The second hypothesis compared the relationship between speech (yes, no) and socioeconomic status (yes, no). If the calculated chi-square

test statistic is greater than the chi-square critical value ( $df = 2$ ,  $\alpha = .05$ , critical value = 2.920) there is a significant relationship between speech and socioeconomic status.

The third hypothesis compared ethnicity and socioeconomic status among students identified with ED and oral language disorders. A relationship between ethnicity and socioeconomic status was deemed significant if the observed chi-square value is larger than the critical chi-square value ( $df = 2$ ,  $\alpha = .05$ , critical value = 2.920). A descriptive analysis of the samples of students identified with speech disorders among the ED population was conducted using a frequency count and percentage formula.

## CHAPTER 4

### RESULTS AND DISCUSSION

The purpose of this study was a multifarious analysis of students in public elementary schools Grades 2 through 6, identified as having an emotional disorder (ED) and speech impairment eligibility for special education services based on criteria for The Individuals With Disabilities Education Act (IDEA, 1990, 1997) in the public schools. The statistical sample was analyzed by a chi-square test of independence to determine a relationship between their (a) ethnicity (i.e., Caucasian, African-American, Hispanic) and speech disorders, and (b) socioeconomic status (i.e., economically disadvantaged, non-economically disadvantaged) and speech disorders. Next, a relationship between socioeconomic status and ethnicity was examined among the students with ED receiving speech services for language. Finally, the data were analyzed using descriptive methods to determine the percentage of the ED population also identified with speech disorders.

#### Description of the Subjects

Subjects for the study were students in Grades 2 through 6 identified in the Texas Pupil Information Management System (PEIMS) database used by districts and the state for purposes of accountability. Public

districts include the traditional independent school districts and consolidated school districts, as well as charter schools (local education agencies) which were first contracted by the state in 1997 (D. Gauge, personal communication, August 16, 1999). Total consolidated school districts and independent school districts in Texas was 1,103; total charter schools for the 1998-1999 school year was 61. Of the 1,103 school districts, 697 districts reported students identified as ED. See Appendix C for the PEIMS information database used in this research.

Ethnic groups including Caucasian, African-American, Hispanic, Asian, and Native-American are presented in Table 4. Since the cohorts of

Table 4  
Students With Emotional Disturbance Categorized by Ethnicity and Speech Impairment

Speech Identification	Ethnicity					Total
	Caucasian	African-American	Hispanic	Asian	Native-American	
Speech disordered	673	388	424	7	0	1,492
Nonspeech disordered	5,525	2,757	3,020	37	46	11,385
Total	6,198	3,145	3,444	44	46	12,877



students of Asian and Native-American ethnic background were too small to be statistically viable and would skew the analysis for the sample, it was decided to consider only the groups with larger counts for the inferential and statistical analyses (i.e., Caucasian, African-American, and Hispanic). The ethnic profile of the sample included: 6,198 students identified as Caucasian; 3,145 identified as African-American, and 3,444 identified as Hispanic.

An economic profile of the total number of students in the study by ethnicity is delineated in Table 5. Total students who were economically disadvantaged was 1,172, not economically disadvantaged was 427. By ethnicity and socioeconomic status the students were: Caucasian--disadvantaged 360, not economically disadvantaged 313; African-American--economically disadvantaged 388, not economically disadvantaged 52; Hispanic--economically disadvantaged 424, not disadvantaged 62. See Table 5.

Table 5

Economic Profile for Students Included in Inferential and Statistical  
Analyses by Ethnicity

Economic Profile	Ethnicity			Total
	Caucasian	African- American	Hispanic	
Economically disadvantaged	360	388	424	1,172
Not economically disadvantaged	313	52	62	427
Total	673	440	486	1,599

In the Texas PEIMS data collection process, speech services are not differentiated for speech (articulation, fluency, and voice) and oral language (i.e., receptive and expressive language). To solicit this information, a brief survey (see Appendix E) was requested from speech therapists. Those 12 districts which met the criteria were invited to participate in the study. District responses varied. Eight districts agreed to participate, including three districts that required an extensive application and gatekeeping approval procedure through the district research department. Two districts declined to participate, and two districts did not respond. The research

department of one large district accepted the research proposal, but the speech department rescinded on their earlier interest and chose not to participate. Another large district provided data but only for ethnicity since socioeconomic data was not available to the speech therapists. One district's data appeared flawed as it did not correlate with PEIMS information, and was, therefore, omitted from the study. In total, 356 (or 63.7%) surveys were returned. Names of districts were not included to ensure confidentiality of districts.

### Data Analysis Methodology

The research questions posed in this study examined the relationship between speech disorders and ethnicity in the sample of students with ED and the relationship between speech disorders and socioeconomic status in the sample of students with ED. A chi-square test of independence was appropriate because of the nominal data collected. Chi-square tests are used to analyze categorical data (Horowitz, 1974). This study analyzed several categories of students identified with ED. The categories included presence of speech disorders, ethnicity, and socioeconomic status, and these categories were analyzed based on frequency counts. The chi-square method answers questions about frequency collections rather than quantitative scores or measurements. The test of independence is applied to two or more groups with two or more categories (Hinkle, Wiersma, & Jurs, 1994) to

determine whether a relationship exists (Horowitz, 1974). Contingency tables are designed to analyze the normative data in each cell and relationships between variables studied (Horowitz, 1974).

Restrictions and observations on the use of the chi-square test are summarized: (a) the chi-square distribution is normal and randomly drawn (Horowitz, 1974); (b) chi-square can only be used with frequency data (Hays, 1981), that is, a subject tallied in one category cannot also be tallied in any other category; (c) in theory no frequency should be smaller than five (Isaac & Michael, 1995); (d) the sum of the expected and observed frequencies should be the same (Isaac & Michael, 1995); and (e) the algebraic sum of the discrepancies between the observed and the corresponding expected frequencies are zero (Isaac & Michael, 1995).

### Research Problems

The results of the research problems are as follows:

#### Research problem 1

The problem of this study was to determine the relationship between speech identification (yes, no) and ethnicity (i.e., Caucasian, African-American, and Hispanic) among students identified as ED in the Texas public schools.

Hypothesis 1--Speech language identification and ethnicity are not independent as determined by a chi-square test of independence. The null

hypothesis was rejected, and the conclusion is that a relationship exists between speech identification and ethnicity. The contingency table and results are displayed in Tables 6 and 7. The test statistic computed for the 2 x 3 contingency table is computed with 2 degrees of freedom association at the .05 alpha level of significance. The critical value is 5.99. The computed chi-square test statistic is 6.681.

Since the computed chi-square value (6.681) exceeds the critical value of 5.99, this result indicates a significant difference between the observed number of students with ED and speech disorders per ethnic group and what would be expected by chance. The Caucasian population identified with speech disorders is the largest part of the chi-square (3.042)

Table 6

Contingency Table for Speech Identification by Ethnicity in Students With Emotional Disorder

Speech Identification	Ethnicity			Total
	Caucasian	African- American	Hispanic	
Speech	673	388	424	1,485
Nonspeech	5,525	2,757	3,020	11,302
Total	6,198	3,145	3,444	12,787

Table 7

Results of the Chi-Square Test of Independence for Ethnicity and Speech  
Language Identification in Students Identified as Emotional Disorder

Speech Identification	Ethnicity								
	Caucasian			African-American			Hispanic		
	#	Expected Value	Chi-Square	#	Expected Value	Chi-Square	#	Expected Value	Chi-Square
Speech disordered	673	719.796	3.042	388	365.24	1.418	424	399.964	1.444
Nonspeech disordered	5,525	5,478.204	0.400	2,757	2,779.76	0.186	3,020	3,044.036	0.190

significance findings. Based on the chi-square statistic, 673 Caucasian students were observed who were identified with speech disorders; 719 would be expected using the chi-square statistic. Thus, fewer Caucasian students were identified than would be expected. The second largest group comprising the statistic is Hispanic (1.444). Based on this statistic, 424 students were observed and 400 would be expected. Thus, more Hispanics were identified than would be expected by chance. The African-American students identified with speech disorders were the third highest component of the chi-square statistic (1.418). Based on this statistic, 388 African-American students were observed, and 365 would be expected based

on the chi-square statistic. Thus, more African-American students were identified than would be expected by chance.

### Problem 2

The problem of this study was to determine the relationship between speech identification (yes, no) and socioeconomic status (i.e., economically disadvantaged, not economically disadvantaged) among students with ED.

Hypothesis 3--Speech identification and socioeconomic status are not independent as determined by a chi-square test of independence. The null hypothesis was rejected, and the conclusion is that a relationship exists between students identified with ED and speech disorders and their socioeconomic status. See Tables 8 and 9 for a contingency table and summary of the results. The critical chi-square value for the 2 x 2 contingency table with 1 degree of freedom at the .05 alpha level is 3.841. The observed chi-square test statistic is 4.388.

Table 8

Contingency Table for Speech Identification by Socioeconomic Status in  
Students With Emotional Disorder

Speech Identification	Socioeconomic Status		Total
	Economically Disadvantaged	Noneconomically Disadvantaged	
Speech disordered	1,058	427	1,485
Nonspeech disordered	8,832	4,045	12,877
Total	9,890	4,472	14,362

Since the chi-square value (4.3888) exceeds the critical value (3.841) these results indicate a significant relationship between speech identification and socioeconomic status in students with ED. The largest part of the computed chi-square (2.709) is based on the 427 students who are not economically disadvantaged but are identified with ED. It appears that non-economically disadvantaged students were identified with fewer speech language disorders than would be expected and more economically



Table 9

Results of the Chi-Square Test of Independence for Socioeconomic Status and Speech Language Disorders in Students Identified With Emotional Disorder

Speech Identification	Socioeconomic Status					
	Economically Disadvantaged			Noneconomically Disadvantaged		
	Number	Expected Value	Chi-Square	Number	Expected Value	Chi-Square
Speech disordered	1,058	1,022.605	1.225	427	462.395	2.709
Nonspeech disordered	8,832	8,867.395	0.141	4,045	4,009.605	0.312

disadvantaged students were identified with speech disorders than would be expected.

Problem 3

In this problem, the sample of interest was students identified as ED and language disordered. The purpose of this problem is to determine whether a relationship exists between ethnicity and socioeconomic status in this population.

Hypothesis 3--Ethnicity and socioeconomic status are not independent in students identified as ED and language disordered. The

null hypothesis was rejected. It can be concluded that a relationship exists between ethnicity and socioeconomic status among these students. The contingency table is shown in Table 10. The results of the chi-square test is displayed in Table 11. The observed test statistic value is 36.102, and it is compared to a chi-square ( $df = 1$ , alpha value = .05), critical value of 5.99 ( $df = 1$ , alpha level = .050).

Table 10

Contingency Table for Socioeconomic Status by Ethnicity in Students With Emotional Disorder and Language Disorders

Socioeconomic Status	Ethnicity			
	Caucasian	African-American	Hispanic	Total
Economically disadvantaged	12	87	77	176
Noneconomically disadvantaged	12	9	4	25
Total	24	96	81	201

Table 11

Results of the Chi-Square Test of Independence for Socioeconomic Status  
and Ethnicity in Students With Emotional Disorder and Language  
Disorders

Socioeconomic Status	Ethnicity								
	Caucasian			African-American			Hispanic		
	#	Expected Value	Chi-Square	#	Expected Value	Chi-Square	#	Expected Value	Square
Economically disadvantaged	12	12.015	3.867	87	84.060	0.103	77	70.925	0.520
Noneconomically disadvantaged	12	2.985	27.225	9	11.940	0.724	4	10.075	3.663

Since the observed chi-square value (36.102) is greater than the critical value (5.99), it is concluded that a significant relationship exists between ethnicity and socioeconomic status in the population of students with ED and language disorders. This conclusion indicates that differences exist between the level of socioeconomic status based on ethnicity in this population. The largest portion comprising the observed chi-square is Caucasian students who are not economically disadvantaged. The expected number in this category is 3. Since the observed number is 12, this shows that Caucasian students are over represented in the noneconomically disadvantaged group. In Table 11, a tremendous disparity can be seen in

the number of African-Americans who were economically disadvantaged (87) and African-Americans who were not economically disadvantaged (9). Similar disparities are seen among Hispanic students: 77 students were economically disadvantaged compared to 4 who were not economically disadvantaged. These disparities were not indicated in the Caucasian population as the number of Caucasian students reported as economically disadvantaged equals the number reported as nondisadvantaged (12 to 12).

### Descriptive Statistic Results

Descriptive statistics classifies and summarizes data numerically (Hinkle et al., 1994). The aggregate total data is shown in Table 4.

### Results

According to the PEIMS (1998-1999) data report, the total number of students identified with ED in Texas is 12,877. Of those students, 1,492 were identified with a secondary handicapping condition of speech. This yields 11.59% of students with a dual diagnosis of ED and speech.

### Interpretation and Discussion

Although the State of Texas data does not distinguish between speech and language disorders, the statistical number of the subgroup of language disorders would be less than the total count for the inclusive categories for speech. The cooccurrence of ED and language disorders in the research literature of 14 studies is in marked contrast to the prevalence in the

schools: 1 study (Cohen, Davine, & Meloche-Kelley, 1989) reported 28% in a psychiatric outpatient population; 9 studies (Beitchman, Peterson, & Clegg, 1988; Camarata, Hughes, & Ruhl, 1988; Cantwell & Baker, 1991; Carrow-Woolfolk, 1999; Gualtieri, Koriath, Van Bourgondien, & Saleeby, 1987; Mack & Warr-Leeper, 1992; McDonough, 1989; Miniutti, 1991; Rogers-Adkinson, 1994/1995) reported a cooccurrence of 48.75% to 83% or 84%, 4 studies (Falconer & Cochrane, 1989; Keefe, Hoge, Shea, & Hoenig, 1992; Novak, 1991/1992; Ruhr, Hughes, & Camarata, 1992) discussed a significant cooccurrence, but did not report a cooccurrence statistic. Ethnicity and socioeconomic status were not reported in all the research studies. Thus, the prevalence of the comorbidity of ED and speech disorders in the public schools of Texas is less than what is reported in the research.

## CHAPTER 5

### SUMMARY, IMPLICATIONS, AND RECOMMENDATIONS

While a representative body of research studies support the cooccurrence of emotional disorder (ED) and speech disorders in clinical, isolated classrooms, and residential programs (e.g., Cantrell & Baker, 1991; Carrow-Woolfolk, 1999; McDonough, 1989; Novak, 1991/1992; Warr-Leeper, Wright, & Mack, 1994), information regarding these codisabilities in school districts is lacking. Beitchman, Tuckett, and Batth (1987) and Beitchman, Peterson, and Clegg (1988) initiated efforts for such broader analysis, but only among preschool children. Moreover, other researchers (Prizant et al., 1990; Prizant & Wetherby, 1990) reported the absence of routine involvement of speech language therapists in the evaluation of students with emotional/behavioral disturbance (EBD).

The purpose of this study was to ascertain the prevalence of both ED and speech disorders in schools by investigating the data in one state. The data for students in Texas, Grades 2 through 6, with special education disabilities of ED and speech impairment, were analyzed for the existence of the dual diagnosis of ED and speech disorder. Furthermore, ethnicity (i.e., Caucasian, African-American, and Hispanic) and socioeconomic status

(i.e., economically disadvantaged, not economically disadvantaged) were considered to determine if a relationship exists for these variables.

Before reviewing the results of this study, limitations and cautions discussed earlier are reiterated. First, the nomenclature used in this study is a factor of the terminology and designation used by the state database collection methods for Pupil Evaluation Information Management Systems (PEIMS). The PEIMS term speech impairment is inclusive of speech (articulation, fluency, and voice) and language. The information obtained from the survey to speech therapists is for language. The PEIMS database does not account for the distinction between speech (articulation, fluency, and voice) and oral language (receptive, expressive including pragmatic factors) in their system. Therefore, these inherent limitations limited the data gathered for oral language. Secondly, PEIMS masks numbers less than five for confidentiality purposes and the total count reflects this factor. Thirdly, the information provided by districts was dependent upon district participation and response. These factors included both special education or speech department choice to participate and the response of speech therapists to the survey.

One final note regarding the disparity between cooccurrence in the research literature is that psychological disorders for some studies (i.e., Beitchman, et al., 1986, 1988; Cantwell & Baker, 1991; Gualtieri, Van Bourgondien, & Saleeby, 1983) included students with attention

deficit disorders. Students with ED disability and attention deficit disorders are distinct special education categories of disabilities (Individuals With Disabilities Education Act [IDEA], 1990, 1997).

### Summary of the Results

The statistical results of this study revealed a school-age population with a comorbidity of ED and speech significantly impacted by ethnicity and socioeconomic status. Based on ethnicity, fewer Caucasian students were identified with a comorbidity than would be expected. Hispanic and African-American students were identified more than would be expected based on both ethnicity and socioeconomic status. The descriptive analysis of the data yielded an 11.7% cooccurrence for all ED and speech impaired students, whereas, the research studies reported anywhere from 28% to 84% cooccurrence. See Table 1 for a summary of these studies.

The results of the research reflect two substantial circumstances. First, among students identified with both ED and speech impairment, specific ethnic and socioeconomic groups were identified more than would be expected. Secondly, and in a separate analysis, those students identified with the dual diagnoses of ED and speech impairment are overall underidentified for speech (including language disabilities) compared to what is reported in the research (see Table 1).



## Implications

Implications of these trends appear to focus on demographics, knowledge-base of staff, referral and assessment practices, and communication skills. These critical areas include cultural differences, economic disadvantage and behaviors associated with low economic status, and/or behavioral or academic problems not consistent with a true disability. Moreover, the issue of language is a complex one, not always understood and routinely addressed in the referral and assessment processes.

Texas demographics is especially noteworthy in the context of this study. The student demographic information reported in PEIMS and the Texas population as reported in the Statistical Abstract of the United States (U. S. Department of Commerce, 1998) are the sources for the following information.

The percentage of the student population identified as ED for the ethnic groups compared to their population as a whole suggest underidentification of the Caucasian population and overidentification of Hispanic and African-American populations. For instance, the public school Hispanic student population identified in this study as ED is 37%. The total Texas Hispanic population is 5,515,000 or 28.3%. The African-American ED public school student population is 24.42%. The total Texas African-American population is 2,374,000 or 12.2%. The Caucasian

public school student population identified as ED is 48.13%. The total white population in Texas is 10,933,000 or 56.2%. See Table 12 for a summary of this profile. Clearly, a greater percentage of Hispanics and African-Americans are identified as ED disproportionate to the population.

Table 12

Ethnicity of Students Identified as Emotionally Disturbed in Texas, Grades 2 Through 6, 1998-1999

Ethnicity	Ethnic Population	% of Total Population	% of Students Identified as ED
Caucasian	10,933,000	56.2	48.13
African-American	2,374,000	12.2	24.42
Hispanic	5,515,000	28.3	37.00

Note. ED = emotionally disturbed.

These results open the door for speculation as to disparity by ethnicity and socioeconomic status. The high incidence of students with speech language disabilities identified as ED from Hispanic and African-American subgroups may reflect classroom behaviors and academic concerns that are instrumental causes in teacher over-referrals for these cultural groups. In addition, language and communication experiences, including registers of language related to socioeconomic status may

contribute to teacher referral patterns. The disproportionate number of students identified as Hispanic and African-American subgroups is documented in this research.

Another result of the analysis that leads speculative causes is the finding that students in Texas with a primary disability of ED and a secondary disability of speech impairment is 11.5%, far less than the 28% to 84% reported in research studies. See Table 1 for a summary of the research studies. This discrepancy between the research studies and this prevalence study is noteworthy.

The internal referral and assessment process in the schools may be indicative of patterns not sensitive to language problems in students. Factors that can be considered in this referral and assessment process include the limited number of referrals and assessments because of the high caseloads of speech therapists. Other concerns focus on the knowledge-base of teachers in language processing and communication skills which impact the identification of potential language deficits. Also, diagnosticians may not be cognizant of the scope of language processing skills to adequately detect language processing deficits. Moreover, assessment instruments may be limited, time-consuming, or not available for diagnoses. Multidisciplinary assessment teams composed of individuals fully aware of a student's subculture(s) can contribute critical information in making decisive and accurate assessment decisions. At a preventative level, routine

assessment of preschool and primary grade youngsters for language deficits or early screenings to identify inappropriate behaviors and communication styles may be minimal at best.

Communication patterns in various environments (e.g., peer, school, community, home), and competency in receptive and expressive language communication skills including pragmatics are axiomatic determinants that influence school activities (Mann, 1999) and competency in social and business relationships (Bullis & Gaylord-Ross, 1991). Appropriate whole school practices may include interpersonal communications skills for successful school interactions, career and jobs, and community activities.

The ramifications of inadequate communication skills, especially pragmatics factors, influence relationships with peers, teachers, family, and others. Poor pragmatic and language skills may be part of the complex equation of juveniles involved with infractions of the law (Falconer & Cochran, 1989). Students dysfunctional in our society because of limited oral language and pragmatic language skills among other factors, are affected in their job security (Bullis & Gaylord-Ross, 1991). Deficits in language may interfere in the normal development and exacerbate behavior problems which may become barriers for positive social relationships with others. Indeed, links between social and emotional issues should be responsive to language needs of the students with ED and justification for language assessments (Keefe, Hoge, Shea, & Hoenig, 1992).

## Recommendations for Future Research and Practices

Findings of this study suggest the need to further investigate the data collection methods and procedures for referrals, assessments, and services for those students identified with ED and specific ethnic and socioeconomic groups. Recommendations for further research include:

1. Research that focuses on the pragmatic language skills of prekindergarten and primary grade students including specific ethnic and socioeconomic groups.
2. Research that focuses on teacher's knowledge of age-appropriate components of language including inferential, idiomatic, ambiguous, and pragmatic language skills.
3. Research that examines the referral and assessment procedures within districts that focus on ethnicity and socioeconomic groups.
4. Research that replicates the study for other ethnic groups.
5. Research that replicates the study to analyze specific trends and practices of specific school districts.
6. Research to investigate the pragmatic skills of adolescents who were dually identified with ED and speech disorders for oral language at 5th through 6th grade level, dismissed from special education speech services, and their subsequent oral language, especially pragmatic skills.

7. Research that analyzes the oral language skills especially pragmatics, among students dismissed from speech services.
8. Research to understand the causal relationships between emotional disturbance and language disorders (Carrow-Woolfolk, 1999).
9. Research for cooccurrence of ED and language among different populations, especially ethnic and socioeconomic groups using the Comprehensive Assessment of Spoken Language (Carrow-Woolfolk, 1999).

Recommendations for school-based referral practices include:

1. Routine screening for oral language including pragmatics, especially in preschool, kindergarten, and primary grades.
2. A routine screening for language as part of a comprehensive psychoeducational assessment for all students identified as ED (Beitchman et al., 1986; Camarata, Hughes, & Ruhl, 1988; Cohen, Davine, & Meloche-Kelly, 1989; Prizant & Wetherby, 1990).
3. Staff development in area of language development, communication skills, including pragmatic language skills to ensure a more knowledgeable staff who can then make appropriate referrals.
4. Increase knowledge of diagnosticians in area of oral language processes.

Recommendations within the school for preventative programs:

1. Development of whole school or classroom-based communication skill lessons (Dodge, 1994).

2. Engaging families in a partnership to improve pragmatic communication skills and further enhance and reinforce the school's effort (Dodge, 1994).

Recommendation for state data collection includes:

1. Review of the database system for speech categories.
2. Consideration of separate categories of speech for (a) articulation, fluency, and/or voice; (b) language processing; (c) both articulation, fluency, or voice and language.

APPENDIX A  
APPLICATION FOR USE OF  
HUMAN SUBJECTS



**APPLICATION FOR APPROVAL OF INVESTIGATION  
INVOLVING THE USE OF HUMAN SUBJECTS**

University of North Texas Institutional Review Board  
for the Protection of Human Subjects in Research (IRB)

This application should be submitted to the Office of Sponsored Projects and Grant Accounting, Room 134, Administration Building.

1. Principal Investigator's Name: Kathi Olinsky Silver
- Department Name & Campus Address: Department of Education, Programs in Special Education
- Campus Phone No.: 940-565-3583 (Dept number) Home No.: 214-505-9950; 214-890-2368
2. If you are a student, please provide the following:
- Home Address of Student: Post Office Box 7604  
Dallas, Texas 75209
- Name of Faculty Sponsor: Dr. Lyndal Bullock Phone Ext: 565-2937
3. Title of Project: research study for doctoral degree (dissertation research)  
Emotional/Behavioral Disorders and Speech/Language Disabilities:  
Prevalence of the Dual Diagnoses in a School-Age Population
4. Total Project Period: From: spring 1999 To: fall 1999 (dependent upon receiving data)
5. Is a proposal for external support being submitted? Yes    No    only as source for database  
If "Yes," you must submit one complete copy of that proposal as soon as it is available and complete the following:
- a) Is notification of Human Subject Approval Required? Yes    No x
- b) Is this a renewal application? Yes    No x
- c) Funding agency's name: N/A
6. In making this application, I certify that I have read and understand the guidelines and procedures developed by the University for the protection of human subjects, and I fully intend to comply with the letter and spirit of the University's Assurance and policy. I further acknowledge my responsibility to report any significant changes in the protocol, and to obtain written approval for these changes, in accordance with the procedures, prior to making these changes. I understand that I cannot initiate any contact with human subjects before I have received approval and/or complied with any contingencies made in connection with that approval.

Signature of Principal Investigator

Date 2-22-1999

7. Approval by Faculty Sponsor (required for all students): I affirm the accuracy of this application, and accept the responsibility for the conduct of this research and supervision of human subjects as required by law.

Signature of Faculty Sponsor

Date

Lyndal Bullock

2/23/99

Page Two - Application

8) I have included copies of all pertinent attachments including, but not limited to: questionnaire/survey instrument, informed consent, letters of approval from cooperating institutions, copy of external major support proposal if applicable, etc. ...

Yes   X   No        (If no, explain on an attached sheet)

**For the following items, attach your answers, appropriately numbered on a separate sheet of paper.**

9) Identify the sources of the potential subjects, derived materials or data. Describe the characteristics of the subject population, such as their anticipated number, age, sex, ethnic background, and state of health. Identify the criteria for inclusion or exclusion. Explain the rationale for the use of special classes of subject, such as fetuses, pregnant women, children, institutionalized mentally disabled, prisoners, or others, especially those whose ability to give voluntary informed consent may be in question.

10) Provide a description of the procedures to be used in the study including hypotheses and description of the research design.

11) Describe the recruitment and consent procedures to be followed, including the circumstances under which consent will be solicited and obtained, who will seek it, the nature of information to be provided to prospective subjects, and the methods of documenting consent. (Include applicable consent forms(s) for review purposes). If written consent is not to be obtained, specifically point this out and explain why not.

{Note: Informed consent must normally be obtained in a written form which requires the subject's signature or that of the subject's legally authorized representative. A waiver of this requirement may be granted by the IRB if adequate justification for the requirement is provided by the investigator in # 11. However, if the procedures pose no more than minimal risk to the subjects, informed consent may be documented via a written cover letter which does not require the subject's signature. **In all cases, a copy of the written informed consent must be give to the subject.** Consult the document "Information on Human Subjects Research" for more information on informed consent requirements and specific examples of possible informed consent documents.}

12) Include a discussion of confidentiality safeguards, where relevant.

13) Describe the anticipated benefits to subjects, and the importance of the knowledge that may reasonably be expected to result.

14) Describe the risks involved with these procedures (physical, psychological, and/or social) and the precautions you have taken to minimize these risks. Do the benefits described above outweigh the described risks?

humansub/humansub.apl

APPENDIX B

LETTER REQUESTING DATA FROM

TEXAS EDUCATION AGENCY

Post Office Box 7604  
Dallas, Texas 75209  
February 17, 1999

Ms. Nina Taylor  
Manager of PEIMS Ad-Hoc Reporting  
Texas Education Agency  
1701 Congress Avenue  
Austin, Texas 78701

Dear Ms. Taylor,

This request is a follow-up to our phone conversation today regarding my dissertation at the University of North Texas, Special Education Special Programs under the tutelage of Dr. Lyndal M. Bullock. Most importantly, I want to thank you for the opportunity to discuss my research plans with you and your willingness to assist me in accessing the data from the Pupil Evaluation and Information Management System (PEIMS) to complete my study. I understand that this data is public-information and that there will be a cost to obtain the information.

The purpose of my study will be to identify co-occurring disabilities for students identified as emotionally disturbed who are also identified as having a speech/language disorder in the public schools as defined by IDEA. Students will be identified by (a) ethnicity and (b) socioeconomic status. The prevalence of this co-occurring disability in the schools is not documented in the literature. I intend to examine both the descriptive information relevant to the dual diagnoses and the statistical analysis to identify the variables of ethnicity and socioeconomic status in this population. I understand "masking" occurs if limited counts exist. I hope to include approximately 200 students, at a minimum, in the study.

At the practitioner--classroom level, efforts to provide appropriate interventions for students both EBD and speech/language deficiencies would be most relevant in meeting the individual needs of these students identified with co-occurring disabilities.

To undertake this study the following information from PEIMS is requested:

1. State of Texas data for school districts that identify:
  - a. the emotionally disturbed population without a secondary disability
  - b. the emotionally disturbed population with speech as a secondary disability
2. The data for these two variables: emotionally disturbed without any other disability and emotionally disturbed with speech as a secondary disability identified by:
  - a. district
  - b. grades 2-6
  - c. socioeconomic status
  - d. ethnicity

I hope that this information is sufficient to access the data requested and I will be happy to respond to your inquiries. I am most appreciative and grateful for your cooperation and interest. I look forward to working with you.

Sincerely,

Kathi Silver, M.Ed.

**Texas Education Agency  
Division of Customer Assistance & Training  
1701 N. Congress Avenue  
Austin, TX 78701**

**Memorandum**

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**To: Kathi Silver**  
**From: Nina Taylor**  
**Date: 02/22/99 TAT**  
**Subject: Letter outlining future request for PEIMS data**

I enjoyed speaking with you on the phone the other day regarding your dissertation plans at the University of North Texas. It is my understanding from our conversation and your letter that you will be requesting masked, de-identified student-level data and/or aggregate student data for students in a specific special education population for one or more years. This information will be extracted from PEIMS (Public Education Information Management System). Much of the data in PEIMS is not public information, especially student-level data, but we will process the data in such a way that students cannot be personally identified, in accordance with the rules and regulations outlined by FERPA (Family Educational Rights and Privacy Act).

The data you have outlined in your letter appear reasonable to me, and I do not foresee any problems in providing this data to you. The only problem that needs to be considered is the loss of data due to masking. If we provide student-level data, any records where counts of students by gender, ethnicity, and grade at the campus or district level are less than 5 will be eliminated. If we provide aggregated data, counts of students less than 5 are replaced with an asterisk or some other non-numeric symbol. This procedure is implemented only to ensure the confidentiality of students in the public school system. We will be happy to work with you on determining the best method of providing relevant, usable data for your research project.

Please do not hesitate to contact me if you have questions or wish to discuss this project further. My telephone number is 512-475-2085, or you may email me at [ntaylor@tmail.tea.state.tx.us](mailto:ntaylor@tmail.tea.state.tx.us).

Sincerely,



Nina Taylor  
Manager, PEIMS Ad-Hoc Reporting

Date: Wed, 14 Apr 1999 15:42:36 -0500  
From: "Gouge, Darlene" <DGouge@tmail.tea.state.tx.us>  
To: "'ks0012@jove.acs.unt.edu'" <ks0012@jove.acs.unt.edu>  
Subject: Data Request

Hi Kathi,

Your data request is near to the top of the queue.

I'm not sure you would be gaining anything by having the non-aggregate form. Since I came into this discussion a little late, why don't I tell you what I was planning to send you.

For 1998-99 special Ed students in grades 2-6, I was going to send you a file that looks as follows:

Each row would contain:

District number

District name

Economic Indicator (1=yes, 0=no)

Ethnicity Code (1-Native American, 2-Asian, 3-African American, 4-Hispanic, 5-White)

Count of students with primary disability of Emotionally disturbed - no secondary or tertiary.

Count of students with primary disability of Emotionally disturbed - secondary of Speech Impairment - no tertiary.

Each of the counts will be masked if the number is less than five. We can mask several different ways. We can put a special number (for instance -1) in the field or we can put a special character (perhaps an \*) or we can put a zero. Usually people choose the -1 option. The asterisk causes problems with some software. With zero you don't really know the difference between <5 and 0.

Your data might look like the following:

001902,Cayuga ISD, 0,3,15,24

001902,Cayuga ISD, 0,3,15,24

001902,Cayuga ISD,1,3,6,9

001902, Cayuga ISD,0,5,-1,8

Which would translate:

Cayuga ISD has 15 African American special ed students in grades 2-6 who are not economically disadvantaged and have Emotionally disturbed as their primary and only disability

Cayuga ISD has 24 African American special ed students in grades 2-6 who are not economically disadvantaged and have Emotionally disturbed as their primary and Speech Impairment as their secondary with no tertiary.

Cayuga ISD has 6 African American special ed students in grades 2-6 who are economically disadvantaged and have Emotionally disturbed as their primary and only disability.

Cayuga ISD has 9 African American special ed students in grades 2-6 who are economically disadvantaged and have Emotionally disturbed as their primary and Speech Impairment as their secondary with no tertiary.

Any other information we include would cause you to lose more information. For example, if we add Grade, we would have to mask if any of the counts at the District, Economic, Ethnic, Grade level were less than 5. That would cause a lot more of the numbers to be masked. I can give you the non-aggregate form but it would only include the information above and would be masked the same way.

By the way, I ran a quick count on the numbers for the state without any masking. There were 7,506 students with emotionally disturbed disability without a secondary or tertiary disability. There were 1,423 students with emotionally disturbed and speech impairment.

Clear as mud? Sometimes it's hard to tell what you really need until you get the data. I have estimated that this data run will cost you \$20. May I make the suggestion that you let us go ahead and create your file. You can then begin to work with it and get back to us if you need something else. Let me know what you would like to do.

Darlene

Darlene Gouge, Acting Manager  
PEIMS Ad Hoc Reporting  
Texas Education Agency  
(512) 463-9060  
fax: (512) 475-3664  
dgouge@tmail.tea.state.tx.us

APPENDIX C

TEXAS PUPIL INFORMATION MANAGEMENT

SYSTEM (PEIMS) RAW DATA



@PW9393/PMW-613

TEXAS EDUCATION AGENCY  
COUNT OF SPECIAL EDUCATION STUDENTS FOR GRADES 2-6 WHO ONLY  
HAVE A PRIMARY DISABILITY OF EMOTIONALLY DISTURBED AND A  
COUNT OF SPECIAL EDUCATION STUDENTS FOR GRADES 2-6 WHO ONLY  
HAVE A PRIMARY DISABILITY OF EMOTIONALLY DISTURBED AND A  
SECONDARY DISABILITY OF SPEECH IMPAIRMENT AND THEIR  
ECONOMIC STATUS  
PEIMS DATA 98-99

DISTRICT	ETHNICITY	ONLY ED ECO. DISADV. COUNT	ONLY ED ECO. DISADV. COUNT	ED(PRIM) SPCH IMPAR(SECOND) ECO. DISADV.	ED(PRIM) SPCH IMPAR(SECOND) ECO. DISADV.
001903 ELKHART ISD	WHITE	0	-99	0	0
001906 NECHES ISD	WHITE	-99	0	0	0
001907 PALESTINE ISD	AFRICAN AMERICAN	-99	0	0	0
	WHITE	0	-99	0	0
001909 SLOCUM ISD	WHITE	-99	0	0	0
002901 ANDREWS ISD	AFRICAN AMERICAN	-99	0	0	0
	HISPANIC	-99	0	-99	0
	WHITE	-99	-99	0	0
003902 HUDSON ISD	HISPANIC	-99	0	0	0
	WHITE	-99	-99	0	0
003903 LUFKIN ISD	AFRICAN AMERICAN	8	0	-99	0
	WHITE	6	7	0	-99
003904 HUNTINGTON ISD	WHITE	-99	-99	0	0
003905 DIBOLL ISD	AFRICAN AMERICAN	-99	0	0	0
	HISPANIC	-99	0	0	0
	WHITE	-99	-99	0	0
003907 CENTRAL ISD	WHITE	-99	-99	0	-99
004901 ARANSAS COUNTY ISD	AFRICAN AMERICAN	-99	-99	0	0
	HISPANIC	-99	0	-99	0
	WHITE	13	-99	-99	0
006902 CLAUDE ISD	WHITE	-99	-99	0	0
007902 JOURDANTON ISD	HISPANIC	-99	0	0	0
	WHITE	-99	0	0	0
007904 LYTLE ISD	HISPANIC	-99	0	-99	0
	WHITE	-99	0	0	0
007905 PLEASANTON ISD	HISPANIC	-99	-99	-99	0
	WHITE	6	-99	0	0
007906 POTEET ISD	HISPANIC	-99	0	0	0
	WHITE	-99	0	-99	0
008901 BELLVILLE ISD	AFRICAN AMERICAN	-99	0	0	0
	WHITE	0	-99	0	-99
008902 SEALY ISD	WHITE	-99	0	0	0
008903 BRAZOS ISD	AFRICAN AMERICAN	-99	0	0	0
010901 MEDINA ISD	WHITE	-99	0	0	0
010902 BANDERA ISD	WHITE	-99	-99	-99	-99
011901 BASTROP ISD	AFRICAN AMERICAN	-99	0	0	0
	HISPANIC	-99	0	-99	0
	WHITE	-99	-99	0	0
011902 ELGIN ISD	AFRICAN AMERICAN	-99	0	0	0
	HISPANIC	0	0	-99	0
	WHITE	0	-99	0	0
011904 SMITHVILLE ISD	AFRICAN AMERICAN	0	-99	0	0
	HISPANIC	0	-99	0	0
	WHITE	-99	-99	0	0
012901 SEYMOUR ISD	AFRICAN AMERICAN	-99	0	0	0
013901 BEEVILLE ISD	AFRICAN AMERICAN	-99	0	0	0
	HISPANIC	-99	0	0	0
	WHITE	-99	-99	0	-99
014903 BELTON ISD	AFRICAN AMERICAN	-99	-99	-99	0
	WHITE	8	6	-99	-99
014906 KILLEEN ISD	AFRICAN AMERICAN	11	-99	-99	0
	HISPANIC	5	0	0	0
	NATIVE AMERICAN	-99	0	0	0
	WHITE	16	6	-99	-99

@PW9393/PMW-613

TEXAS EDUCATION AGENCY  
COUNT OF SPECIAL EDUCATION STUDENTS FOR GRADES 2-6 WHO ONLY  
HAVE A PRIMARY DISABILITY OF EMOTIONALLY DISTURBED AND A  
COUNT OF SPECIAL EDUCATION STUDENTS FOR GRADES 2-6 WHO ONLY  
HAVE A PRIMARY DISABILITY OF EMOTIONALLY DISTURBED AND A  
SECONDARY DISABILITY OF SPEECH IMPAIRMENT AND THEIR  
ECONOMIC STATUS  
PEIMS DATA 98-99

DISTRICT	ETHNICITY	ONLY ED ECO. DISADV. COUNT	ONLY ED ECO. DISADV. COUNT	ED(PRIM) SPCH IMPAR(SECOND) ECO. DISADV.	ED(PRIM) SPCH IMPAR(SECOND) NOT ECO. DIS
014907 ROGERS ISD	WHITE	-99	0	0	0
014909 TEMPLE ISD	AFRICAN AMERICAN	7	0	0	0
	HISPANIC	-99	0	0	0
	WHITE	-99	-99	-99	0
014910 TROY ISD	WHITE	-99	-99	0	0
015804 RAMESES SCHOOL	AFRICAN AMERICAN	-99	0	0	0
015805 SAN ANTONIO ADVANTAGE CHARTER SCHO	HISPANIC	-99	0	0	0
015806 SCHOOL OF EXCELLENCE IN EDUCATION	AFRICAN AMERICAN	0	-99	0	0
	HISPANIC	-99	0	0	0
015901 ALAMO HEIGHTS ISD	AFRICAN AMERICAN	-99	-99	0	0
	HISPANIC	0	-99	0	0
	WHITE	-99	6	0	0
015904 HARLANDALE ISD	AFRICAN AMERICAN	-99	0	-99	0
	HISPANIC	26	-99	-99	0
	WHITE	5	0	-99	0
015905 EDGEWOOD ISD	AFRICAN AMERICAN	-99	0	0	0
	HISPANIC	70	0	12	0
	WHITE	-99	0	0	0
015906 RANDOLPH FIELD ISD	AFRICAN AMERICAN	-99	0	0	-99
	ASIAN	0	-99	0	0
	HISPANIC	0	-99	0	0
	WHITE	0	-99	0	-99
✓ 015907 SAN ANTONIO ISD	AFRICAN AMERICAN	70	-99	15	0
	ASIAN	-99	0	0	0
	HISPANIC	226	26	46	-99
	NATIVE AMERICAN	-99	0	0	0
	WHITE	25	7	-99	0
✓ 015908 SOUTH SAN ANTONIO ISD	AFRICAN AMERICAN	-99	0	0	0
	HISPANIC	45	-99	18	-99
	WHITE	-99	0	-99	0
015909 SOMERSET ISD	HISPANIC	6	0	-99	0
	WHITE	-99	-99	0	0
015910 NORTH EAST ISD	AFRICAN AMERICAN	26	5	6	-99
	ASIAN	-99	0	0	0
	HISPANIC	58	19	15	5
	WHITE	33	58	-99	7
015911 EAST CENTRAL ISD	AFRICAN AMERICAN	-99	-99	-99	0
	HISPANIC	-99	-99	-99	0
	WHITE	18	-99	-99	-99
015912 SOUTHWEST ISD	AFRICAN AMERICAN	-99	-99	0	0
	HISPANIC	14	0	7	0
	WHITE	8	-99	-99	-99
015913 LACKLAND ISD	AFRICAN AMERICAN	0	-99	0	0
	WHITE	0	-99	-99	0
015914 FT SAM HOUSTON ISD	AFRICAN AMERICAN	0	-99	0	0
	HISPANIC	0	0	-99	0
	WHITE	5	-99	0	0
015915 NORTHSIDE ISD	AFRICAN AMERICAN	21	-99	-99	0
	ASIAN	0	-99	0	0
	HISPANIC	58	14	12	-99
	WHITE	35	26	8	-99
015916 JUDSON ISD	AFRICAN AMERICAN	22	5	-99	-99
	HISPANIC	12	-99	7	-99
	WHITE	10	27	-99	-99
015917 SOUTHSIDE ISD	AFRICAN AMERICAN	-99	0	0	0
	HISPANIC	11	-99	-99	0
	WHITE	6	-99	0	0
016901 JOHNSON CITY ISD	HISPANIC	-99	0	0	0
016902 BLANCO ISD	HISPANIC	0	0	0	-99
	WHITE	-99	0	-99	0

0PW9393/PMW-613

TEXAS EDUCATION AGENCY  
COUNT OF SPECIAL EDUCATION STUDENTS FOR GRADES 2-6 WHO ONLY  
HAVE A PRIMARY DISABILITY OF EMOTIONALLY DISTURBED AND A  
COUNT OF SPECIAL EDUCATION STUDENTS FOR GRADES 2-6 WHO ONLY  
HAVE A PRIMARY DISABILITY OF EMOTIONALLY DISTURBED AND A  
SECONDARY DISABILITY OF SPEECH IMPAIRMENT AND THEIR  
ECONOMIC STATUS  
PEIMS DATA 98-99

DISTRICT	ETHNICITY	ONLY ED ECO. DISADV. COUNT	ONLY ED ECO. DISADV. COUNT	ED(PRIM) SPCH IMPAR(SECOND) ECO. DISADV.	ED(PRIM) SPCH IMPAR(SECOND) NOT ECO. DIS
018901 CLIFTON ISD	WHITE	0	0	-99	0
018904 VALLEY MILLS ISD	WHITE	-99	0	0	0
018906 IREDELL ISD	WHITE	0	-99	0	0
018907 KOPPERL ISD	WHITE	-99	0	0	0
018908 CRANFILLS GAP ISD	WHITE	-99	0	0	0
019903 MAUD ISD	WHITE	-99	0	0	0
019905 NEW BOSTON ISD	AFRICAN AMERICAN	0	-99	0	0
019907 TEXARKANA ISD	AFRICAN AMERICAN	7	0	0	0
	WHITE	-99	-99	0	0
019908 LIBERTY-EYLAU ISD	AFRICAN AMERICAN	-99	0	-99	0
	WHITE	-99	0	0	0
020901 ALVIN ISD	AFRICAN AMERICAN	9	-99	0	0
	HISPANIC	8	0	0	0
	NATIVE AMERICAN	-99	0	0	0
	WHITE	22	14	-99	-99
020902 ANGLETON ISD	AFRICAN AMERICAN	-99	0	0	0
	HISPANIC	-99	0	0	0
	WHITE	-99	5	0	0
020905 BRAZOSPORT ISD	AFRICAN AMERICAN	-99	-99	0	-99
	WHITE	5	-99	0	-99
020906 SWEENEY ISD	AFRICAN AMERICAN	-99	0	0	0
	WHITE	-99	-99	0	0
020907 COLUMBIA-BRAZORIA ISD	AFRICAN AMERICAN	0	-99	0	0
	WHITE	-99	0	0	0
020908 PEARLAND ISD	ASIAN	0	-99	0	0
	WHITE	-99	8	0	0
021901 COLLEGE STATION ISD	AFRICAN AMERICAN	-99	0	0	0
	WHITE	-99	-99	0	0
021902 BRYAN ISD	AFRICAN AMERICAN	15	5	-99	-99
	HISPANIC	7	-99	0	0
	WHITE	8	-99	-99	-99
023902 SILVERTON ISD	WHITE	0	-99	0	0
024901 BROOKS ISD	HISPANIC	-99	0	0	0
025901 BANGS ISD	WHITE	-99	-99	0	0
025902 BROWNWOOD ISD	AFRICAN AMERICAN	-99	0	-99	0
	HISPANIC	-99	0	0	0
	WHITE	5	0	0	0
025904 BLANKET ISD	WHITE	-99	0	0	0
025905 MAY ISD	WHITE	-99	0	0	0
025906 ZEPHYR ISD	WHITE	0	-99	0	0
025909 EARLY ISD	WHITE	-99	0	0	0
026901 CALDWELL ISD	AFRICAN AMERICAN	-99	0	0	0
	WHITE	-99	-99	-99	0
026902 SOMERVILLE ISD	HISPANIC	-99	0	0	0
	WHITE	0	-99	0	0
026903 SNOOK ISD	AFRICAN AMERICAN	-99	0	0	0
027903 BURNET CONS ISD	WHITE	6	0	0	0
027904 MARBLE FALLS ISD	WHITE	-99	-99	-99	0
028902 LOCKHART ISD	AFRICAN AMERICAN	-99	0	0	0
	HISPANIC	-99	0	0	0
	WHITE	-99	-99	-99	0

PRW9393/RMW-013

LEAS EDUCATION AGENCY  
COUNT OF SPECIAL EDUCATION STUDENTS FOR GRADES 2-6 WHO ONLY  
HAVE A PRIMARY DISABILITY OF EMOTIONALLY DISTURBED AND A  
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HAVE A PRIMARY DISABILITY OF EMOTIONALLY DISTURBED AND A  
SECONDARY DISABILITY OF SPEECH IMPAIRMENT AND THEIR  
ECONOMIC STATUS  
PEIMS DATA 98-99

DISTRICT	ETHNICITY	ONLY ED ECO. DISADV. COUNT	ONLY ED NOT ECO. DISADV. COUNT	ED(PRIM) SPCH IMPAR(SECOND) ECO. DISADV.	ED(PRIM) SPCH IMPAR(SECOND) NOT ECO. DIS
028903 LULING ISD	WHITE	-99	0	0	0
029901 CALHOUN CO. ISD	AFRICAN AMERICAN	-99	0	0	0
	HISPANIC	0	-99	0	0
	WHITE	5	0	0	0
030902 CLYDE CONS ISD	WHITE	-99	-99	-99	0
030903 BAIRD ISD	WHITE	0	0	0	-99
030906 EULA ISD	WHITE	-99	0	-99	0
031901 BROWNSVILLE ISD	HISPANIC	71	9	21	-99
	WHITE	-99	0	0	0
031903 HARLINGEN CONS ISD	HISPANIC	13	-99	-99	-99
	WHITE	-99	-99	0	-99
031905 LA FERIA ISD	HISPANIC	0	-99	0	0
031906 LOS FRESNOS CONS ISD	HISPANIC	11	0	0	0
	WHITE	-99	-99	0	0
031909 POINT ISABEL ISD	AFRICAN AMERICAN	-99	0	0	0
	HISPANIC	-99	0	0	0
031911 RIO HONDO ISD	HISPANIC	-99	0	0	0
031912 SAN BENITO CONS ISD	HISPANIC	-99	-99	-99	0
031914 SANTA ROSA ISD	HISPANIC	-99	0	0	0
031916 SOUTH TEXAS ISD	HISPANIC	-99	0	0	0
032902 PITTSBURG ISD	AFRICAN AMERICAN	-99	-99	0	0
033901 GROOM ISD	NATIVE AMERICAN	-99	0	0	0
034903 HUGHES SPRINGS ISD	WHITE	-99	0	0	0
034905 LINDEN-KILDARE CONS ISD	WHITE	-99	0	0	0
034907 QUEEN CITY ISD	AFRICAN AMERICAN	-99	0	0	0
	WHITE	-99	0	-99	0
036901 ANAHUAC ISD	AFRICAN AMERICAN	-99	0	-99	0
036902 BARBERS HILL ISD	WHITE	-99	-99	0	0
036903 EAST CHAMBERS ISD	AFRICAN AMERICAN	-99	0	0	0
	WHITE	-99	-99	-99	-99
037901 ALTO ISD	AFRICAN AMERICAN	-99	0	0	0
037904 JACKSONVILLE ISD	AFRICAN AMERICAN	-99	0	0	0
	WHITE	-99	-99	0	-99
037907 RUSK ISD	AFRICAN AMERICAN	-99	0	0	0
	WHITE	-99	-99	0	0
040902 WHITEFACE CONS ISD	WHITE	0	-99	0	0
042901 COLEMAN ISD	HISPANIC	0	0	0	-99
	WHITE	0	0	-99	0
043901 ALLEN ISD	AFRICAN AMERICAN	-99	-99	0	0
	WHITE	-99	5	0	0
043902 ANNA ISD	WHITE	-99	0	0	0
043903 CELINA ISD	WHITE	0	-99	0	0
043904 FARMERSVILLE ISD	AFRICAN AMERICAN	-99	0	0	0
	HISPANIC	-99	0	0	0
043905 FRISCO ISD	WHITE	0	-99	0	0
043907 MCKINNEY ISD	AFRICAN AMERICAN	6	-99	-99	0
	HISPANIC	-99	0	0	0
	WHITE	-99	8	0	0
043908 MELISSA ISD	WHITE	0	-99	0	0

0PW9393/PMW-613

TEXAS EDUCATION AGENCY  
COUNT OF SPECIAL EDUCATION STUDENTS FOR GRADES 2-6 WHO ONLY  
HAVE A PRIMARY DISABILITY OF EMOTIONALLY DISTURBED AND A  
COUNT OF SPECIAL EDUCATION STUDENTS FOR GRADES 2-6 WHO ONLY  
HAVE A PRIMARY DISABILITY OF EMOTIONALLY DISTURBED AND A  
SECONDARY DISABILITY OF SPEECH IMPAIRMENT AND THEIR  
ECONOMIC STATUS  
PEIMS DATA 98-99

DISTRICT	ETHNICITY	ONLY ED ECO. DISADV. COUNT	ONLY ED ECO. DISADV. COUNT	ED(PRIM) ECO. DISADV. SPCH IMPAR(SECOND)	ED(PRIM) ECO. DISADV. SPCH IMPAR(SECOND)
043910 PLANO ISD	AFRICAN AMERICAN	-99	0	0	0
	HISPANIC	-99	-99	-99	0
	WHITE	-99	28	-99	-99
043911 PRINCETON ISD	WHITE	0	-99	-99	0
043914 WYLIE ISD	NATIVE AMERICAN	0	-99	0	0
	WHITE	-99	-99	0	-99
043917 BLUE RIDGE ISD	WHITE	-99	0	-99	0
043918 COMMUNITY ISD	WHITE	0	-99	-99	0
043919 LOVEJOY ISD	WHITE	0	-99	-99	0
045902 COLUMBUS ISD	HISPANIC	-99	0	0	0
	WHITE	0	-99	0	0
045903 RICE CONS ISD	AFRICAN AMERICAN	0	-99	0	0
	WHITE	-99	0	0	0
045905 WEIMAR ISD	AFRICAN AMERICAN	-99	0	0	0
046901 NEW BRAUNFELS ISD	WHITE	-99	-99	-99	-99
046902 COMAL ISD	AFRICAN AMERICAN	-99	0	0	0
	HISPANIC	-99	-99	-99	0
	WHITE	10	17	6	-99
047901 COMANCHE ISD	AFRICAN AMERICAN	-99	0	0	0
	WHITE	0	-99	-99	0
047902 DE LEON ISD	WHITE	-99	0	0	0
047903 GUSTINE ISD	WHITE	-99	0	0	0
049901 GAINESVILLE ISD	WHITE	-99	-99	-99	0
049905 CALLISBURG ISD	WHITE	-99	-99	0	0
049906 ERA ISD	WHITE	-99	0	0	0
050902 GATESVILLE ISD	AFRICAN AMERICAN	-99	0	0	0
	HISPANIC	0	-99	0	0
	WHITE	-99	-99	0	0
050904 OGLESBY ISD	WHITE	-99	0	0	0
050910 COPPERAS COVE ISD	AFRICAN AMERICAN	11	-99	-99	0
	ASIAN	0	-99	0	0
	HISPANIC	0	-99	0	-99
	WHITE	11	8	7	0
054903 RALLS ISD	WHITE	-99	0	0	0
055901 CULBERSON COUNTY-ALLAMOORE ISD	HISPANIC	-99	0	0	0
056901 DALHART ISD	WHITE	-99	0	0	0
057801 RENAISSANCE CHARTER SCHOOL	WHITE	0	-99	0	0
057807 LIFE CHARTER SCHOOL OF OAK CLIFF	AFRICAN AMERICAN	-99	0	0	0
057903 CARROLLTON-FARMERS BRANCH ISD	AFRICAN AMERICAN	-99	-99	0	0
	ASIAN	0	-99	-99	0
	HISPANIC	-99	-99	-99	-99
	NATIVE AMERICAN	0	0	0	-99
	WHITE	7	28	-99	5
057904 CEDAR HILL ISD	AFRICAN AMERICAN	-99	-99	-99	0
	WHITE	0	-99	0	0
057905 DALLAS ISD	AFRICAN AMERICAN	173	20	24	-99
	HISPANIC	40	8	5	-99
	NATIVE AMERICAN	-99	0	0	0
	WHITE	32	38	7	-99
057906 DESOTO ISD	AFRICAN AMERICAN	-99	0	-99	0
	HISPANIC	0	-99	0	0
	WHITE	-99	-99	0	0
057907 DUNCANVILLE ISD	AFRICAN AMERICAN	-99	5	-99	0

08/25/99/010

TEA'S EDUCATION AGENCY  
COUNT OF SPECIAL EDUCATION STUDENTS FOR GRADES 2-6 WHO ONLY  
HAVE A PRIMARY DISABILITY OF EMOTIONALLY DISTURBED AND A  
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HAVE A PRIMARY DISABILITY OF EMOTIONALLY DISTURBED AND A  
SECONDARY DISABILITY OF SPEECH IMPAIRMENT AND THEIR  
ECONOMIC STATUS  
PEIMS DATA 98-99

DISTRICT	ETHNICITY	ONLY ED ECO. DISADV. COUNT	NOT ECO. DISADV. COUNT	ED(PRIM) SPCH IMPAR(SECOND) ECO. DISADV.	ED(PRIM) SPCH IMPAR(SECOND) NOT ECO. DIS
057907 DUNCANVILLE ISD	HISPANIC	0	-99	0	0
	WHITE	-99	5	-99	0
057909 GARLAND ISD	AFRICAN AMERICAN	31	8	-99	-99
	HISPANIC	12	8	5	-99
	NATIVE AMERICAN	0	-99	0	0
	WHITE	29	55	6	14
057910 GRAND PRAIRIE ISD	AFRICAN AMERICAN	-99	0	-99	0
	HISPANIC	7	0	0	0
	WHITE	-99	11	-99	-99
057911 HIGHLAND PARK ISD	WHITE	0	7	0	-99
057912 IRVING ISD	AFRICAN AMERICAN	11	8	-99	0
	HISPANIC	6	-99	-99	0
	WHITE	14	9	5	-99
057913 LANCASTER ISD	WHITE	-99	-99	0	-99
057914 MESQUITE ISD	AFRICAN AMERICAN	7	-99	-99	0
	HISPANIC	-99	0	0	0
	WHITE	11	18	-99	6
✓ 057916 RICHARDSON ISD	AFRICAN AMERICAN	6	-99	8	5
	ASIAN	0	0	-99	0
	HISPANIC	-99	0	0	-99
	WHITE	5	20	0	6
057920 WILMER-HUTCHINS ISD	AFRICAN AMERICAN	0	0	-99	0
057922 COPPELL ISD	HISPANIC	-99	0	0	0
	WHITE	0	10	0	0
058906 LAMESA ISD	WHITE	-99	0	0	0
059901 HEREFORD ISD	HISPANIC	-99	0	0	0
	WHITE	-99	-99	0	0
060902 COOPER ISD	AFRICAN AMERICAN	-99	0	0	0
	WHITE	0	-99	0	0
060914 FANNINDEL ISD	AFRICAN AMERICAN	-99	0	0	0
061901 DENTON ISD	AFRICAN AMERICAN	-99	5	0	-99
	HISPANIC	-99	0	0	0
	WHITE	8	13	-99	0
061902 LEWISVILLE ISD	AFRICAN AMERICAN	-99	-99	0	-99
	ASIAN	-99	0	0	0
	HISPANIC	-99	-99	0	-99
	WHITE	12	29	-99	-99
061903 PILOT POINT ISD	AFRICAN AMERICAN	-99	0	0	0
	WHITE	-99	-99	0	0
061905 KRUM ISD	WHITE	0	0	-99	0
061906 PONDER ISD	HISPANIC	0	0	0	-99
	WHITE	0	-99	0	0
061908 SANGER ISD	AFRICAN AMERICAN	-99	0	0	0
	WHITE	0	-99	0	-99
061910 ARGYLE ISD	WHITE	-99	0	0	0
061911 NORTHWEST ISD	WHITE	-99	-99	-99	-99
061912 LAKE DALLAS ISD	WHITE	0	-99	0	0
061914 LITTLE ELM ISD	WHITE	-99	-99	0	0
062901 CUERO ISD	AFRICAN AMERICAN	-99	0	0	0
	HISPANIC	-99	0	0	0
	NATIVE AMERICAN	-99	0	0	0
	WHITE	-99	0	0	0
062902 NORDHEIM ISD	HISPANIC	-99	0	0	0
	WHITE	-99	0	0	0
062903 YOAKUM ISD	AFRICAN AMERICAN	5	0	0	0
	HISPANIC	5	0	0	0

@PW9393/PMW-613

TEXAS EDUCATION AGENCY  
COUNT OF SPECIAL EDUCATION STUDENTS FOR GRADES 2-6 WHO ONLY  
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DISTRICT	ETHNICITY	ONLY ED ECO. DISADV. COUNT	ONLY ED ECO. DISADV. NOT ECO. DISADV. COUNT	ED(PRIM) SPCH IMPAR(SECOND) ECO. DISADV.	ED(PRIM) SPCH IMPAR(SECOND) NOT ECO. DIS
062903 YOAKUM ISD	WHITE	-99	-99	-99	0
062904 YORKTOWN ISD	HISPANIC	-99	0	0	0
064903 CARRIZO SPRINGS CONS ISD	HISPANIC	5	0	0	0
065901 CLARENDON ISD	WHITE	-99	0	0	0
066902 SAN DIEGO ISD	HISPANIC	-99	0	-99	0
067903 EASTLAND ISD	WHITE	-99	-99	0	-99
067904 GORMAN ISD	WHITE	-99	0	0	0
068901 ECTOR COUNTY ISD	AFRICAN AMERICAN	-99	0	0	0
	HISPANIC	7	0	0	0
	WHITE	9	9	-99	0
069901 ROCKSPRINGS ISD	WHITE	0	-99	0	0
069902 NUECES CANYON CONS ISD	HISPANIC	0	-99	0	0
	WHITE	-99	0	0	0
070901 AVALON ISD	WHITE	-99	0	0	0
070905 FERRIS ISD	WHITE	-99	-99	-99	0
070907 ITALY ISD	HISPANIC	0	0	-99	0
070908 MIDLOTHIAN ISD	AFRICAN AMERICAN	0	-99	0	0
	WHITE	-99	-99	0	0
070911 RED OAK ISD	WHITE	-99	7	0	0
070912 WAXAHACHIE ISD	AFRICAN AMERICAN	-99	0	0	0
	HISPANIC	-99	0	0	0
	WHITE	-99	5	-99	-99
070915 MAYPEARL ISD	WHITE	-99	0	0	0
071901 CLINT ISD	HISPANIC	-99	0	-99	-99
071902 EL PASO ISD	AFRICAN AMERICAN	0	-99	0	-99
	HISPANIC	29	5	16	-99
	WHITE	10	10	0	-99
071904 SAN ELIZARIO ISD	HISPANIC	-99	0	0	0
071905 YSLETA ISD	AFRICAN AMERICAN	-99	0	0	0
	HISPANIC	5	-99	-99	0
	WHITE	-99	-99	0	-99
071907 CANUTILLO ISD	HISPANIC	-99	-99	0	0
071909 SOCORRO ISD	HISPANIC	6	0	-99	0
	WHITE	-99	-99	-99	-99
072903 STEPHENVILLE ISD	HISPANIC	0	0	-99	0
	WHITE	-99	-99	-99	0
072904 BLUFF DALE ISD	WHITE	0	0	-99	0
072908 HUCKABAY ISD	WHITE	-99	0	0	0
072909 LINGLEVILLE ISD	WHITE	0	-99	0	0
073901 CHILTON ISD	HISPANIC	-99	0	0	0
	WHITE	-99	0	0	0
073903 MARLIN ISD	AFRICAN AMERICAN	-99	0	-99	0
	WHITE	0	-99	0	0
073905 ROSEBUD-LOTT ISD	AFRICAN AMERICAN	-99	0	0	0
	WHITE	-99	0	-99	0
074903 BONHAM ISD	AFRICAN AMERICAN	-99	0	-99	0
	WHITE	6	-99	-99	0
074905 ECTOR ISD	WHITE	-99	0	0	0
074907 HONEY GROVE ISD	WHITE	0	0	-99	0

0PW9393/PMW-613

TEXAS EDUCATION AGENCY  
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074909 LEONARD ISD	AFRICAN AMERICAN	-99	0	0	0
	WHITE	0	-99	0	0
074911 SAVOY ISD	WHITE	0	-99	0	0
074912 TRENTON ISD	HISPANIC	0	-99	0	0
	WHITE	-99	0	0	0
075903 SCHULENBURG ISD	AFRICAN AMERICAN	-99	0	0	0
076903 ROBY CONS ISD	WHITE	0	0	-99	0
076904 ROTAN ISD	WHITE	-99	0	0	-99
077902 LOCKNEY ISD	HISPANIC	-99	0	0	0
079901 LAMAR CONSOLIDATED ISD	AFRICAN AMERICAN	7	-99	-99	0
	HISPANIC	6	0	-99	0
	WHITE	0	5	-99	-99
079906 NEEDVILLE ISD	HISPANIC	-99	0	0	0
	NATIVE AMERICAN	0	0	0	-99
	WHITE	0	-99	0	0
079907 FORT BEND ISD	AFRICAN AMERICAN	28	10	5	-99
	ASIAN	0	-99	0	-99
	HISPANIC	-99	-99	-99	0
	WHITE	5	19	-99	6
079908 KENDLETON ISD	HISPANIC	-99	0	0	0
079910 STAFFORD MSD	AFRICAN AMERICAN	0	-99	0	0
	HISPANIC	0	-99	0	0
081902 FAIRFIELD ISD	AFRICAN AMERICAN	0	-99	0	0
	WHITE	-99	0	0	0
081904 TEAGUE ISD	WHITE	-99	0	0	0
081905 WORTHAM ISD	WHITE	0	-99	0	0
082902 DILLEY ISD	HISPANIC	-99	-99	0	0
082903 PEARSALL ISD	HISPANIC	9	0	-99	0
	WHITE	-99	0	0	0
084901 DICKINSON ISD	AFRICAN AMERICAN	-99	-99	0	0
	HISPANIC	-99	0	0	-99
	WHITE	-99	8	-99	0
084902 GALVESTON ISD	AFRICAN AMERICAN	-99	0	-99	0
	HISPANIC	-99	0	0	0
	WHITE	-99	-99	0	0
084903 HIGH ISLAND ISD	HISPANIC	0	-99	0	0
	WHITE	-99	0	0	0
084904 LA MARQUE ISD	AFRICAN AMERICAN	-99	0	-99	0
	WHITE	-99	-99	-99	0
084906 TEXAS CITY ISD	AFRICAN AMERICAN	-99	-99	0	0
	HISPANIC	-99	0	0	0
	WHITE	-99	-99	0	0
084908 HITCHCOCK ISD	AFRICAN AMERICAN	0	-99	0	0
084910 CLEAR CREEK ISD	AFRICAN AMERICAN	-99	-99	0	-99
	ASIAN	0	-99	0	0
	HISPANIC	0	0	0	-99
	WHITE	-99	27	0	-99
084911 FRIENDSWOOD ISD	WHITE	0	0	0	-99
088902 GOLIAD ISD	AFRICAN AMERICAN	-99	0	0	0
	HISPANIC	0	-99	0	0
089901 GONZALES ISD	AFRICAN AMERICAN	7	0	0	0
	HISPANIC	6	0	0	0
	WHITE	-99	-99	0	0
089903 NIXON-SMILEY CONS ISD	HISPANIC	-99	0	0	0
	WHITE	-99	0	0	0



0PW9393/PMW-613

TEXAS EDUCATION AGENCY  
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090904 PAMPA ISD	WHITE	5	0	0	0
091901 BELLS ISD	WHITE	-99	-99	0	0
091903 DENISON ISD	AFRICAN AMERICAN	-99	-99	0	0
	WHITE	6	-99	-99	0
091905 HOWE ISD	WHITE	-99	-99	-99	0
091906 SHERMAN ISD	AFRICAN AMERICAN	-99	0	0	0
	WHITE	7	5	-99	0
091908 VAN ALSTYNE ISD	WHITE	-99	0	0	0
091909 WHITESBORO ISD	HISPANIC	0	-99	0	0
	WHITE	0	-99	-99	-99
091914 S AND S CONS ISD	WHITE	0	-99	0	0
092901 GLADEWATER ISD	AFRICAN AMERICAN	-99	0	0	0
	WHITE	-99	-99	0	0
092903 LONGVIEW ISD	AFRICAN AMERICAN	12	0	-99	0
	WHITE	-99	-99	-99	0
092904 PINE TREE ISD	WHITE	-99	-99	-99	0
092906 SABINE ISD	HISPANIC	-99	0	0	0
092907 SPRING HILL ISD	WHITE	0	0	-99	0
092908 WHITE OAK ISD	WHITE	0	-99	0	0
093904 NAVASOTA ISD	AFRICAN AMERICAN	-99	0	0	0
	WHITE	-99	-99	0	0
094901 SEGUIN ISD	AFRICAN AMERICAN	8	-99	0	0
	HISPANIC	7	-99	0	-99
	WHITE	9	5	-99	-99
094902 SCHERTZ-CIBOLO-U CITY ISD	AFRICAN AMERICAN	0	-99	0	0
	HISPANIC	-99	-99	0	0
	WHITE	-99	6	0	0
094904 MARION ISD	WHITE	-99	-99	0	0
095901 ABERNATHY ISD	WHITE	-99	0	0	0
095905 PLAINVIEW ISD	WHITE	0	-99	0	0
097902 HAMILTON ISD	HISPANIC	-99	0	0	0
097903 HICO ISD	WHITE	-99	-99	0	0
098904 SPEARMAN ISD	WHITE	-99	0	0	0
100903 KOUNTZE ISD	WHITE	0	-99	0	0
100905 HARDIN-JEFFERSON ISD	AFRICAN AMERICAN	-99	0	-99	0
	WHITE	-99	-99	-99	0
100907 LUMBERTON ISD	WHITE	5	-99	0	0
100908 WEST HARDIN COUNTY CONS ISD	WHITE	-99	-99	0	0
101811 HARRIS COUNTY JUVENILE JUSTICE CHA	AFRICAN AMERICAN	-99	0	0	0
101814 VARNETT CHARTER SCHOOL	AFRICAN AMERICAN	-99	0	0	0
✓ 101902 ALDINE ISD	AFRICAN AMERICAN	89	20	13	-99
	ASIAN	-99	0	0	0
	HISPANIC	22	-99	-99	0
	WHITE	26	11	-99	-99
✓ 101903 ALIEF ISD	AFRICAN AMERICAN	55	15	12	-99
	ASIAN	-99	0	0	0
	HISPANIC	6	-99	-99	-99
	WHITE	10	13	0	-99
101905 CHANNELVIEW ISD	AFRICAN AMERICAN	-99	0	0	0
	HISPANIC	-99	-99	-99	0
	WHITE	-99	-99	0	0

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DISTRICT	ETHNICITY	ONLY ED ECO. DISADV. COUNT	ONLY ED NOT ECO. DISADV. COUNT	ED(PRIM) SPCH IMPAR(SECOND) ECO. DISADV.	ED(PRIM) SPCH IMPAR(SECOND) NOT ECO. DIS
101906 CROSBY ISD	AFRICAN AMERICAN	-99	0	-99	-99
	WHITE	-99	-99	0	0
101907 CYPRESS-FAIRBANKS ISD	AFRICAN AMERICAN	8	6	-99	-99
	HISPANIC	0	-99	0	0
	WHITE	7	21	-99	9
101908 DEER PARK ISD	HISPANIC	-99	0	0	0
	WHITE	-99	7	-99	-99
101909 NORTH FOREST ISD	AFRICAN AMERICAN	-99	-99	0	0
101910 GALENA PARK ISD	AFRICAN AMERICAN	-99	-99	-99	0
	HISPANIC	-99	-99	0	0
	WHITE	6	-99	-99	-99
101911 GOOSE CREEK ISD	AFRICAN AMERICAN	10	-99	0	-99
	HISPANIC	-99	10	0	0
	WHITE	9	13	5	-99
101912 HOUSTON ISD	AFRICAN AMERICAN	330	23	78	5
	ASIAN	0	0	-99	0
	HISPANIC	133	9	33	-99
	WHITE	33	35	12	8
101913 HUMBLE ISD	AFRICAN AMERICAN	5	-99	-99	0
	HISPANIC	-99	-99	0	-99
	WHITE	7	16	-99	-99
101914 KATY ISD	AFRICAN AMERICAN	-99	-99	0	0
	HISPANIC	-99	-99	0	0
	NATIVE AMERICAN	0	-99	0	0
	WHITE	-99	26	0	-99
101915 KLEIN ISD	AFRICAN AMERICAN	14	11	-99	0
	ASIAN	0	-99	0	0
	HISPANIC	6	5	-99	-99
	NATIVE AMERICAN	-99	0	0	0
	WHITE	18	48	-99	8
101916 LA PORTE ISD	HISPANIC	-99	0	0	0
	WHITE	-99	6	0	0
101917 PASADENA ISD	AFRICAN AMERICAN	9	-99	-99	-99
	HISPANIC	15	7	6	-99
	WHITE	28	30	14	-99
101919 SPRING ISD	AFRICAN AMERICAN	27	11	-99	-99
	HISPANIC	6	5	-99	-99
	WHITE	17	27	5	9
101920 SPRING BRANCH ISD	AFRICAN AMERICAN	6	-99	7	0
	ASIAN	0	-99	0	0
	HISPANIC	20	-99	5	0
	NATIVE AMERICAN	0	-99	0	0
	WHITE	8	22	12	10
101921 TOMBALL ISD	AFRICAN AMERICAN	-99	0	0	0
	HISPANIC	-99	0	-99	0
	WHITE	5	7	0	0
101924 SHELDON ISD	AFRICAN AMERICAN	-99	-99	0	0
	WHITE	7	-99	0	-99
101925 HUFFMAN ISD	WHITE	-99	5	-99	0
102901 KARNACK ISD	AFRICAN AMERICAN	-99	0	0	0
102902 MARSHALL ISD	AFRICAN AMERICAN	17	-99	0	0
	WHITE	5	-99	0	0
102904 HALLSVILLE ISD	AFRICAN AMERICAN	-99	0	0	0
	WHITE	-99	-99	0	0
102905 HARLETON ISD	WHITE	0	-99	0	0
102906 ELYSIAN FIELDS ISD	AFRICAN AMERICAN	-99	0	-99	0
	WHITE	0	-99	0	0
103901 CHANNING ISD	HISPANIC	-99	0	0	0
	WHITE	-99	0	0	0

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104907 PAINT CREEK ISD	WHITE	0	-99	0	0
105902 SAN MARCOS CONS ISD	HISPANIC	-99	-99	0	0
	WHITE	-99	-99	0	0
105904 DRIPPING SPRINGS ISD	HISPANIC	-99	0	0	0
	WHITE	-99	-99	0	0
105905 WIMBERLEY ISD	WHITE	0	-99	0	0
105906 HAYS CONS ISD	AFRICAN AMERICAN	-99	-99	0	0
	HISPANIC	-99	0	0	0
	WHITE	-99	-99	-99	0
106901 CANADIAN ISD	WHITE	-99	0	0	0
107901 ATHENS ISD	HISPANIC	-99	0	0	0
	WHITE	-99	0	0	0
107902 BROWNSBORO ISD	WHITE	-99	-99	0	0
107905 EUSTACE ISD	WHITE	-99	-99	0	0
107906 MALAKOFF ISD	WHITE	-99	-99	0	0
107908 MURCHISON ISD	WHITE	-99	0	0	0
108902 DONNA ISD	HISPANIC	6	-99	-99	0
	WHITE	0	0	-99	0
108903 EDCOUCH-ELSA ISD	HISPANIC	8	0	0	0
108904 EDINBURG CISD	HISPANIC	-99	0	0	0
108905 HIDALGO ISD	HISPANIC	-99	0	0	0
108906 MCALLEN ISD	HISPANIC	-99	-99	-99	0
	WHITE	-99	-99	0	0
108909 PHARR-SAN JUAN-ALAMO ISD	HISPANIC	11	-99	-99	-99
	WHITE	-99	0	-99	0
108910 PROGRESO ISD	HISPANIC	-99	0	0	0
108911 SHARYLAND ISD	HISPANIC	-99	0	0	-99
	WHITE	-99	0	0	0
108912 LA JOYA ISD	HISPANIC	10	-99	-99	0
108913 WESLACO ISD	HISPANIC	7	0	-99	0
	WHITE	-99	0	0	0
108914 LA VILLA ISD	HISPANIC	6	-99	0	0
108915 MONTE ALTO ISD	HISPANIC	-99	0	0	0
108916 VALLEY VIEW ISD	HISPANIC	-99	0	0	0
109901 ABBOTT ISD	WHITE	-99	0	0	0
109903 COVINGTON ISD	WHITE	0	-99	0	0
109904 HILLSBORO ISD	AFRICAN AMERICAN	-99	0	0	0
	WHITE	-99	0	0	0
109905 HUBBARD ISD	AFRICAN AMERICAN	-99	0	-99	0
109907 ITASCA ISD	AFRICAN AMERICAN	-99	0	0	0
	WHITE	-99	0	0	0
109910 MOUNT CALM ISD	AFRICAN AMERICAN	-99	0	0	0
109911 WHITNEY ISD	WHITE	6	-99	0	0
109912 AQUILLA ISD	WHITE	0	-99	0	0
109913 BLUM ISD	WHITE	-99	0	0	0
110902 LEVELLAND ISD	HISPANIC	-99	0	0	0
	WHITE	0	-99	0	0
110908 WHITHARRAL ISD	WHITE	0	-99	0	0

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111901 GRANBURY ISD	WHITE	5	5	-99	-99
112901 SULPHUR SPRINGS ISD	AFRICAN AMERICAN	0	-99	0	0
	WHITE	6	-99	0	0
112905 CUMBY ISD	WHITE	-99	0	0	0
112906 NORTH HOPKINS ISD	WHITE	0	-99	0	0
112909 SALTILLO ISD	WHITE	-99	0	0	0
113901 CROCKETT ISD	AFRICAN AMERICAN	-99	0	0	0
	HISPANIC	-99	0	0	0
	WHITE	-99	0	0	0
113902 GRAPELAND ISD	WHITE	0	-99	0	0
113906 KENNARD ISD	AFRICAN AMERICAN	-99	0	0	0
	WHITE	-99	0	0	0
114901 BIG SPRING ISD	AFRICAN AMERICAN	-99	0	0	0
	HISPANIC	0	0	-99	0
	WHITE	0	-99	0	0
114902 COAHOMA ISD	WHITE	-99	0	0	0
116903 COMMERCE ISD	AFRICAN AMERICAN	-99	0	-99	0
	WHITE	-99	0	0	0
116905 GREENVILLE ISD	HISPANIC	0	-99	0	0
	WHITE	6	-99	-99	0
116906 LONE OAK ISD	WHITE	0	-99	0	0
116908 QUINLAN ISD	WHITE	9	-99	-99	0
116909 WOLFE CITY ISD	WHITE	0	0	-99	0
116910 CAMPBELL ISD	WHITE	-99	-99	0	0
116916 BOLES ISD	WHITE	0	-99	0	0
117901 BORGER ISD	WHITE	-99	0	-99	0
117903 SANFORD ISD	WHITE	-99	-99	-99	0
117907 SPRING CREEK ISD	WHITE	-99	-99	0	0
118902 IRION CO ISD	WHITE	-99	0	0	0
120901 EDNA ISD	HISPANIC	-99	0	0	0
121903 BUNA ISD	WHITE	-99	0	-99	0
121904 JASPER ISD	AFRICAN AMERICAN	-99	0	0	0
	WHITE	-99	0	0	0
121905 KIRBYVILLE ISD	AFRICAN AMERICAN	-99	0	0	0
	WHITE	-99	-99	-99	-99
123905 NEDERLAND ISD	AFRICAN AMERICAN	0	0	-99	0
	WHITE	-99	-99	0	-99
123907 PORT ARTHUR ISD	AFRICAN AMERICAN	-15	-99	-99	0
	ASIAN	-99	0	0	0
	HISPANIC	0	0	-99	0
	WHITE	6	0	0	0
123908 PORT NECHES-GROVES ISD	WHITE	-99	11	-99	-99
123910 BEAUMONT ISD	AFRICAN AMERICAN	22	-99	5	-99
	WHITE	5	-99	0	0
123913 SABINE PASS ISD	WHITE	-99	-99	0	0
123914 HAMSHIRE-FANNETT ISD	AFRICAN AMERICAN	-99	0	0	0
	HISPANIC	0	-99	0	0
	WHITE	-99	6	0	0
125901 ALICE ISD	HISPANIC	-99	0	0	0
	WHITE	-99	-99	0	5

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125903 ORANGE GROVE ISD	NATIVE AMERICAN	-99	0	0	0
125905 PREMONT ISD	HISPANIC	0	-99	0	0
126901 ALVARADO ISD	AFRICAN AMERICAN	-99	0	0	0
	WHITE	-99	0	-99	0
126902 BURLESON ISD	WHITE	-99	-99	0	0
126903 CLEBURNE ISD	WHITE	9	-99	-99	-99
126904 GRANDVIEW ISD	WHITE	0	0	-99	0
126905 JOSHUA ISD	WHITE	-99	-99	0	0
126907 RIO VISTA ISD	WHITE	0	-99	0	0
126908 VENUS ISD	WHITE	-99	0	0	0
126911 GODLEY ISD	WHITE	0	-99	0	0
127901 ANSON ISD	WHITE	-99	0	0	0
127903 HAMLIN ISD	AFRICAN AMERICAN	-99	0	0	0
	WHITE	-99	0	0	0
127904 HAWLEY ISD	WHITE	-99	-99	0	0
127906 STAMFORD ISD	AFRICAN AMERICAN	-99	0	0	0
	HISPANIC	-99	0	0	0
	WHITE	-99	0	0	0
128901 KARNES CITY ISD	AFRICAN AMERICAN	-99	0	0	0
	HISPANIC	-99	0	0	0
128902 KENEDY ISD	WHITE	-99	0	0	-99
128903 RUNGE ISD	WHITE	-99	0	0	0
129901 CRANDALL ISD	AFRICAN AMERICAN	-99	0	0	0
	WHITE	0	0	0	-99
129902 FORNEY ISD	WHITE	-99	0	0	0
129903 KAUFMAN ISD	HISPANIC	0	-99	0	0
	WHITE	0	-99	0	0
129904 KEMP ISD	AFRICAN AMERICAN	-99	0	0	0
	WHITE	0	0	0	-99
129905 MABANK ISD	WHITE	-99	-99	-99	-99
129906 TERRELL ISD	HISPANIC	0	-99	0	0
	WHITE	0	14	0	0
129910 SCURRY-ROSSER ISD	WHITE	0	0	-99	0
130901 BOERNE ISD	HISPANIC	-99	0	0	0
	WHITE	5	-99	0	0
130902 COMFORT ISD	WHITE	-99	0	0	0
133901 CENTER POINT ISD	WHITE	-99	0	0	0
133902 HUNT ISD	WHITE	-99	-99	0	0
133903 KERRVILLE ISD	AFRICAN AMERICAN	-99	0	0	0
	HISPANIC	5	0	0	0
	WHITE	9	7	-99	-99
133904 INGRAM ISD	AFRICAN AMERICAN	-99	0	0	0
	HISPANIC	8	0	0	0
	WHITE	7	0	0	0
134901 JUNCTION ISD	WHITE	-99	0	0	0
137901 KINGSVILLE ISD	HISPANIC	6	0	-99	0
137904 SANTA GERTRUDIS ISD	HISPANIC	-99	0	0	0
139905 CHISUM ISD	WHITE	-99	-99	-99	0

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139908 ROXTON ISD	AFRICAN AMERICAN	-99	0	0	0
139909 PARIS ISD	AFRICAN AMERICAN	-99	0	0	0
	WHITE	-99	0	-99	0
139911 NORTH LAMAR ISD	AFRICAN AMERICAN	-99	0	0	0
	WHITE	-99	-99	0	0
140904 LITTLEFIELD ISD	AFRICAN AMERICAN	-99	0	0	0
	HISPANIC	-99	0	0	0
141901 LAMPASAS ISD	WHITE	-99	-99	0	0
142901 COTULLA ISD	HISPANIC	5	0	0	0
143901 HALLETTSVILLE ISD	AFRICAN AMERICAN	-99	0	0	0
	WHITE	-99	-99	0	0
143902 MOULTON ISD	HISPANIC	-99	0	0	0
143903 SHINER ISD	AFRICAN AMERICAN	-99	0	0	0
	ASIAN	0	0	0	-99
	WHITE	-99	-99	-99	0
143904 VYSEHRAD ISD	WHITE	0	-99	0	0
144901 GIDDINGS ISD	AFRICAN AMERICAN	-99	0	0	0
144902 LEXINGTON ISD	AFRICAN AMERICAN	-99	0	0	0
	HISPANIC	-99	0	0	0
	NATIVE AMERICAN	-99	0	0	0
	WHITE	-99	0	0	0
145902 CENTERVILLE ISD	WHITE	-99	0	0	0
145906 NORMANGEE ISD	WHITE	-99	0	0	0
146901 CLEVELAND ISD	WHITE	-99	-99	0	0
146902 DAYTON ISD	HISPANIC	-99	0	0	0
	WHITE	-99	-99	0	0
146905 HULL-DAISETTA ISD	AFRICAN AMERICAN	-99	0	0	0
	WHITE	-99	0	0	0
146906 LIBERTY ISD	WHITE	0	0	0	-99
146907 TARKINGTON ISD	WHITE	-99	-99	0	0
147902 GROESBECK ISD	WHITE	0	-99	0	0
147903 MEXIA ISD	WHITE	-99	0	-99	0
150901 LLANO ISD	WHITE	-99	0	0	0
152901 LUBBOCK ISD	AFRICAN AMERICAN	-99	-99	-99	0
	HISPANIC	-99	0	0	0
	NATIVE AMERICAN	-99	0	0	0
	WHITE	-99	7	-99	0
152903 SLATON ISD	WHITE	-99	0	0	0
152906 LUBBOCK-COOPER ISD	WHITE	-99	0	0	0
152907 FRENSHIP ISD	AFRICAN AMERICAN	0	-99	0	0
	HISPANIC	0	-99	0	0
	WHITE	-99	-99	-99	0
152908 ROOSEVELT ISD	AFRICAN AMERICAN	-99	0	0	0
	HISPANIC	-99	-99	0	0
	WHITE	-99	0	0	0
152909 SHALLOWATER ISD	WHITE	0	-99	0	0
154901 MADISONVILLE CONS ISD	AFRICAN AMERICAN	-99	0	0	0
155901 JEFFERSON ISD	AFRICAN AMERICAN	-99	0	0	0
	WHITE	0	-99	0	0
158901 BAY CITY ISD	AFRICAN AMERICAN	0	0	-99	0
	WHITE	0	0	0	-99

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158905 PALACIOS ISD	AFRICAN AMERICAN	-99	0	0	0
	WHITE	0	-99	0	0
158906 VAN VLECK ISD	AFRICAN AMERICAN	-99	0	0	0
	WHITE	-99	0	0	0
159901 EAGLE PASS ISD	HISPANIC	21	0	-99	0
	WHITE	-99	0	0	0
160901 BRADY ISD	HISPANIC	-99	0	0	0
	WHITE	0	-99	0	0
161801 WACO CHARTER SCHOOL	AFRICAN AMERICAN	-99	0	0	0
	WHITE	-99	0	0	0
161901 CRAWFORD ISD	WHITE	0	-99	0	0
161903 MIDWAY ISD	AFRICAN AMERICAN	0	-99	0	0
	HISPANIC	-99	0	0	0
	WHITE	-99	10	0	6
161906 LA VEGA ISD	AFRICAN AMERICAN	-99	0	0	0
	HISPANIC	-99	0	-99	0
	WHITE	-99	0	-99	-99
161907 LORENA ISD	HISPANIC	-99	0	-99	0
	WHITE	-99	15	0	-99
161908 MART ISD	AFRICAN AMERICAN	0	0	-99	0
161909 MCGREGOR ISD	WHITE	0	-99	0	-99
161910 MOODY ISD	WHITE	-99	-99	0	0
161912 RIESEL ISD	HISPANIC	0	-99	0	0
	WHITE	-99	7	-99	0
161914 WACO ISD	AFRICAN AMERICAN	8	0	-99	0
	HISPANIC	6	0	0	-99
	WHITE	-99	-99	-99	0
161916 WEST ISD	ASIAN	-99	0	0	0
	HISPANIC	-99	0	0	0
	WHITE	5	-99	-99	-99
161918 AXTELL ISD	AFRICAN AMERICAN	-99	0	-99	0
	WHITE	-99	0	0	-99
161919 BRUCEVILLE-EDDY ISD	HISPANIC	-99	-99	0	0
	WHITE	-99	-99	-99	-99
161920 CHINA SPRING ISD	AFRICAN AMERICAN	0	0	-99	0
	HISPANIC	-99	0	0	0
	WHITE	5	11	0	-99
161921 CONNALLY ISD	WHITE	-99	0	0	0
161922 ROBINSON ISD	WHITE	-99	-99	0	0
161923 BOSQUEVILLE ISD	WHITE	0	0	-99	0
161925 GHOLSON ISD	AFRICAN AMERICAN	0	0	-99	0
163901 DEVINE ISD	HISPANIC	-99	-99	0	0
	WHITE	-99	-99	0	0
163902 D'HANIS ISD	HISPANIC	-99	0	0	0
	WHITE	0	0	0	-99
163903 NATALIA ISD	HISPANIC	-99	0	0	0
	WHITE	-99	0	-99	0
163904 HONDO ISD	HISPANIC	-99	0	-99	0
	WHITE	-99	-99	0	0
163908 MEDINA VALLEY ISD	HISPANIC	-99	-99	-99	0
	WHITE	-99	-99	-99	0
164901 MENARD ISD	HISPANIC	-99	0	0	0
165901 MIDLAND ISD	AFRICAN AMERICAN	0	0	-99	0
	HISPANIC	-99	-99	-99	0

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T E X A S   E D U C A T I O N   A G E N C Y  
COUNT OF SPECIAL EDUCATION STUDENTS FOR GRADES 2-6 WHO ONLY  
HAVE A PRIMARY DISABILITY OF EMOTIONALLY DISTURBED AND A  
COUNT OF SPECIAL EDUCATION STUDENTS FOR GRADES 2-6 WHO ONLY  
HAVE A PRIMARY DISABILITY OF EMOTIONALLY DISTURBED AND A  
SECONDARY DISABILITY OF SPEECH IMPAIRMENT AND THEIR  
ECONOMIC STATUS  
PEIMS DATA 98-99

DISTRICT	ETHNICITY	ONLY ED ECO. DISADV. COUNT	ONLY ED ECO. DISADV. COUNT	ED(PRIM) SPCH IMPAR(SECOND) ECO. DISADV.	ED(PRIM) SPCH IMPAR(SECOND) NOT ECO. DIS
165901 MIDLAND ISD	WHITE	8	-99	-99	-99
165902 GREENWOOD ISD	WHITE	0	-99	0	0
166901 CAMERON ISD	HISPANIC	-99	0	0	0
	WHITE	-99	0	-99	0
166902 GAUSE ISD	WHITE	-99	0	0	0
166903 MILANO ISD	AFRICAN AMERICAN	0	0	-99	0
166904 ROCKDALE ISD	AFRICAN AMERICAN	-99	0	0	0
	HISPANIC	-99	0	0	0
	WHITE	0	-99	0	0
167901 GOLDTHWAITE ISD	AFRICAN AMERICAN	0	5	0	0
	HISPANIC	0	-99	0	0
	WHITE	-99	8	0	0
167903 STAR ISD	WHITE	-99	0	-99	0
169908 MONTAGUE ISD	WHITE	-99	0	0	0
170902 CONROE ISD	AFRICAN AMERICAN	13	-99	0	0
	ASIAN	0	-99	0	-99
	HISPANIC	-99	0	-99	0
	NATIVE AMERICAN	0	-99	0	0
	WHITE	23	32	5	5
170903 MONTGOMERY ISD	AFRICAN AMERICAN	-99	0	0	0
	WHITE	-99	-99	-99	0
170904 WILLIS ISD	AFRICAN AMERICAN	-99	0	-99	0
	WHITE	-99	7	0	-99
170906 MAGNOLIA ISD	AFRICAN AMERICAN	-99	0	0	0
	WHITE	7	13	-99	-99
170907 SPLENDORA ISD	HISPANIC	0	-99	0	0
	WHITE	0	-99	0	0
170908 NEW CANEY ISD	AFRICAN AMERICAN	-99	-99	0	0
	HISPANIC	-99	0	0	0
	WHITE	18	5	0	0
171901 DUMAS ISD	WHITE	-99	-99	0	0
172902 DAINGERFIELD-LONE STAR ISD	WHITE	-99	0	0	0
174901 CHIRENO ISD	HISPANIC	-99	0	0	0
174902 CUSHING ISD	WHITE	-99	0	0	0
174904 NACOGDOCHES ISD	AFRICAN AMERICAN	7	0	-99	0
	WHITE	-99	-99	-99	0
174906 WODEN ISD	AFRICAN AMERICAN	-99	0	0	0
	HISPANIC	-99	0	0	0
	WHITE	6	0	0	0
174908 CENTRAL HEIGHTS ISD	WHITE	0	-99	-99	0
175903 CORSICANA ISD	AFRICAN AMERICAN	-99	0	0	0
	HISPANIC	0	-99	0	0
	WHITE	-99	-99	0	0
175904 DAWSON ISD	WHITE	0	-99	0	0
175907 KERENS ISD	WHITE	-99	0	0	0
175911 RICE ISD	WHITE	-99	-99	0	0
176901 BURKEVILLE ISD	WHITE	0	-99	0	0
176902 NEWTON ISD	AFRICAN AMERICAN	-99	0	0	0
	WHITE	-99	-99	0	0
176903 DEWEYVILLE ISD	WHITE	-99	0	0	0
177901 ROSCOE ISD	WHITE	0	-99	0	0
177902 SWEETWATER ISD	AFRICAN AMERICAN	-99	0	0	0



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ECONOMIC STATUS  
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178803 COASTAL BEND YOUTH CITY	HISPANIC	-99	0	0	0
	WHITE	-99	0	0	0
178902 BISHOP CONS ISD	HISPANIC	-99	0	-99	0
178903 CALALLEN ISD	HISPANIC	-99	-99	0	0
	WHITE	-99	-99	-99	0
178904 CORPUS CHRISTI ISD	AFRICAN AMERICAN	10	-99	0	0
	HISPANIC	41	10	10	-99
	NATIVE AMERICAN	-99	0	0	0
	WHITE	5	8	0	0
178908 PORT ARANSAS ISD	HISPANIC	-99	0	0	0
	WHITE	0	0	0	-99
178909 ROBSTOWN ISD	HISPANIC	8	-99	-99	-99
178912 TULOSO-MIDWAY ISD	HISPANIC	-99	0	-99	0
	NATIVE AMERICAN	-99	0	0	0
	WHITE	-99	-99	0	0
178914 FLOUR BLUFF ISD	AFRICAN AMERICAN	-99	0	0	0
	HISPANIC	-99	0	0	0
	WHITE	7	-99	0	0
178915 WEST OSO ISD	AFRICAN AMERICAN	7	0	0	0
	HISPANIC	14	-99	-99	0
180902 VEGA ISD	WHITE	-99	0	0	0
180903 ADRIAN ISD	WHITE	-99	0	-99	0
181905 ORANGEFIELD ISD	WHITE	-99	-99	0	0
181906 WEST ORANGE-COVE CONS ISD	AFRICAN AMERICAN	5	-99	-99	0
	HISPANIC	0	0	-99	0
	NATIVE AMERICAN	-99	0	0	0
	WHITE	-99	-99	-99	0
181907 VIDOR ISD	WHITE	9	-99	-99	0
181908 LITTLE CYPRESS-MAURICEVILLE CISD	AFRICAN AMERICAN	-99	0	0	0
	WHITE	8	8	0	-99
182903 MINERAL WELLS ISD	WHITE	7	-99	-99	0
182905 STRAWN ISD	WHITE	-99	0	0	0
183902 CARTHAGE ISD	WHITE	-99	-99	0	0
184901 POOLVILLE ISD	WHITE	-99	0	0	0
184902 SPRINGTOWN ISD	HISPANIC	-99	0	0	0
	WHITE	-99	-99	0	-99
184903 WEATHERFORD ISD	AFRICAN AMERICAN	-99	0	0	0
	HISPANIC	-99	0	0	0
	NATIVE AMERICAN	0	-99	0	0
	WHITE	16	12	-99	0
184904 MILLSAP ISD	WHITE	0	-99	0	0
184907 ALEDO ISD	ASIAN	0	-99	0	0
	HISPANIC	0	-99	0	0
	WHITE	-99	-99	0	-99
184908 PEASTER ISD	WHITE	-99	-99	0	0
184911 GARNER ISD	WHITE	-99	0	0	0
185904 LAZBUDDIE ISD	WHITE	-99	0	0	0
186902 FT STOCKTON ISD	HISPANIC	-99	0	0	0
187903 GOODRICH ISD	AFRICAN AMERICAN	-99	0	0	0
	WHITE	-99	0	0	0
187904 CORRIGAN-CAMDEN ISD	AFRICAN AMERICAN	-99	0	0	0
	WHITE	0	0	-99	0
187907 LIVINGSTON ISD	AFRICAN AMERICAN	0	-99	0	0

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187907 LIVINGSTON ISD	WHITE	8	0	-99	0
187910 ONALASKA ISD	WHITE	0	-99	0	0
188901 AMARILLO ISD	AFRICAN AMERICAN	12	-99	0	0
	HISPANIC	-99	0	0	0
	WHITE	13	6	-99	-99
188902 RIVER ROAD ISD	AFRICAN AMERICAN	-99	0	0	0
	WHITE	-99	-99	0	0
188903 HIGHLAND PARK ISD	WHITE	-99	-99	0	0
188904 BUSHLAND ISD	WHITE	-99	0	-99	0
190903 RAINS ISD	WHITE	-99	-99	0	-99
191901 CANYON ISD	HISPANIC	-99	0	0	0
	NATIVE AMERICAN	0	-99	0	0
	WHITE	7	-99	-99	-99
194904 CLARKSVILLE ISD	AFRICAN AMERICAN	-99	0	0	0
	WHITE	-99	0	0	0
195901 PECOS-BARSTOW-TOYAH ISD	AFRICAN AMERICAN	0	-99	0	0
	HISPANIC	-99	0	0	0
196902 WOODSBORO ISD	WHITE	0	-99	0	0
196903 REFUGIO ISD	HISPANIC	0	-99	0	0
198901 BREMOND ISD	WHITE	0	-99	0	0
198905 HEARNE ISD	WHITE	-99	-99	0	-99
199901 ROCKWALL ISD	HISPANIC	-99	0	0	0
	WHITE	0	5	0	-99
199902 ROYSE CITY ISD	WHITE	-99	0	0	0
201902 HENDERSON ISD	AFRICAN AMERICAN	7	-99	0	0
	WHITE	-99	-99	-99	0
201903 LANEVILLE ISD	AFRICAN AMERICAN	-99	0	-99	0
201904 LEVERETTS CHAPEL ISD	AFRICAN AMERICAN	0	-99	0	0
201907 MOUNT ENTERPRISE ISD	AFRICAN AMERICAN	-99	0	0	0
201908 OVERTON ISD	WHITE	-99	0	0	0
201914 WEST RUSK ISD	HISPANIC	0	0	-99	0
	WHITE	-99	0	0	0
202903 HEMPHILL ISD	HISPANIC	0	0	-99	0
	WHITE	-99	-99	0	0
202905 WEST SABINE ISD	WHITE	-99	0	0	0
203901 SAN AUGUSTINE ISD	AFRICAN AMERICAN	-99	0	0	0
204901 COLDSRING-OAKHURST CONS ISD	WHITE	-99	0	0	0
204904 SHEPHERD ISD	AFRICAN AMERICAN	0	-99	0	0
	WHITE	-99	0	0	0
205901 ARANSAS PASS ISD	AFRICAN AMERICAN	-99	0	0	0
	HISPANIC	-99	0	-99	0
	WHITE	9	-99	-99	0
205902 GREGORY-PORTLAND ISD	HISPANIC	-99	0	-99	0
	WHITE	-99	-99	0	0
205903 INGLESIDE ISD	WHITE	-99	-99	-99	0
205904 MATHIS ISD	HISPANIC	5	0	-99	0
	WHITE	0	-99	0	0
205906 SINTON ISD	HISPANIC	6	0	0	0
	WHITE	0	0	0	-99
205907 TAFT ISD	HISPANIC	-99	0	0	-99

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206901 SAN SABA ISD	AFRICAN AMERICAN	-99	0	0	0
	WHITE	-99	0	0	0
206903 CHEROKEE ISD	AFRICAN AMERICAN	0	0	-99	0
	WHITE	-99	0	0	0
208902 SNYDER ISD	HISPANIC	-99	0	0	0
	WHITE	-99	-99	0	0
210901 CENTER ISD	WHITE	0	0	0	-99
210902 JOAQUIN ISD	WHITE	-99	0	0	-99
210905 TIMPSON ISD	AFRICAN AMERICAN	-99	0	0	0
	WHITE	-99	0	0	0
210906 EXCELSIOR ISD	WHITE	-99	0	0	0
212801 ACADEMY OF SKILLS & KNOWLEDGE	HISPANIC	0	-99	0	0
212901 ARP ISD	WHITE	-99	-99	0	0
212902 BULLARD ISD	WHITE	-99	0	0	-99
212903 LINDALE ISD	AFRICAN AMERICAN	-99	0	0	0
	WHITE	6	-99	0	-99
212904 TROUP ISD	AFRICAN AMERICAN	-99	0	0	-99
	WHITE	-99	-99	0	0
212905 TYLER ISD	AFRICAN AMERICAN	13	-99	7	-99
	HISPANIC	-99	-99	0	0
	WHITE	11	8	-99	-99
212906 WHITEHOUSE ISD	AFRICAN AMERICAN	-99	-99	0	0
	HISPANIC	-99	0	0	0
	WHITE	7	-99	0	0
212909 CHAPEL HILL ISD	AFRICAN AMERICAN	-99	-99	0	0
	HISPANIC	-99	0	0	0
	WHITE	6	-99	0	0
212910 WINONA ISD	WHITE	-99	-99	0	0
213901 GLEN ROSE ISD	WHITE	0	-99	0	0
214901 RIO GRANDE CITY ISD	HISPANIC	8	-99	0	0
214902 SAN ISIDRO ISD	HISPANIC	0	0	0	-99
214903 ROMA ISD	HISPANIC	-99	0	0	0
215901 BRECKENRIDGE ISD	WHITE	-99	0	0	0
216901 STERLING CITY ISD	WHITE	-99	0	0	0
217901 ASPERMONT ISD	WHITE	-99	-99	0	0
218901 SONORA ISD	WHITE	0	-99	0	0
220901 ARLINGTON ISD	AFRICAN AMERICAN	15	-99	8	-99
	HISPANIC	-99	-99	0	0
	WHITE	13	26	6	12
220902 BIRDVILLE ISD	AFRICAN AMERICAN	0	-99	0	0
	ASIAN	-99	0	0	0
	HISPANIC	-99	-99	-99	-99
	WHITE	14	19	-99	-99
220904 EVERMAN ISD	AFRICAN AMERICAN	6	-99	-99	0
	WHITE	5	0	-99	0
220905 FORT WORTH ISD	AFRICAN AMERICAN	37	12	6	-99
	HISPANIC	16	-99	-99	-99
	WHITE	24	31	7	-99
220906 GRAPEVINE-COLLEYVILLE ISD	HISPANIC	0	-99	0	0
	WHITE	5	13	0	-99
220907 KELLER ISD	HISPANIC	-99	0	0	0
	WHITE	9	11	-99	0

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220908 MANSFIELD ISD	AFRICAN AMERICAN	0	-99	0	-99
	HISPANIC	-99	0	-99	0
	WHITE	-99	6	-99	-99
220910 LAKE WORTH ISD	HISPANIC	-99	0	0	0
	WHITE	5	0	0	0
220912 CROWLEY ISD	AFRICAN AMERICAN	0	0	0	-99
	NATIVE AMERICAN	0	0	0	-99
	WHITE	6	-99	0	-99
220914 KENNEDALE ISD	AFRICAN AMERICAN	0	-99	0	0
	WHITE	-99	5	0	-99
220915 AZLE ISD	WHITE	9	-99	-99	0
220916 HURST-EULESS-BEDFORD ISD	AFRICAN AMERICAN	-99	-99	-99	0
	HISPANIC	-99	0	-99	-99
	WHITE	12	7	0	-99
220917 CASTLEBERRY ISD	WHITE	-99	-99	-99	0
220918 EAGLE MT-SAGINAW ISD	AFRICAN AMERICAN	0	-99	-99	0
	HISPANIC	-99	0	0	0
	NATIVE AMERICAN	-99	0	0	0
	WHITE	6	7	-99	-99
220919 CARROLL ISD	AFRICAN AMERICAN	0	0	-99	0
	WHITE	-99	10	0	-99
220920 WHITE SETTLEMENT ISD	AFRICAN AMERICAN	0	-99	0	0
	HISPANIC	-99	0	0	0
	WHITE	-99	-99	0	0
221901 ABILENE ISD	AFRICAN AMERICAN	-99	-99	-99	0
	HISPANIC	-99	0	-99	0
	WHITE	8	-99	-99	-99
221904 MERKEL ISD	HISPANIC	-99	0	0	0
	WHITE	0	-99	0	0
221905 TRENT ISD	HISPANIC	-99	0	0	0
221911 JIM NED CONS ISD	WHITE	-99	0	0	-99
221912 WYLIE ISD	WHITE	0	0	0	-99
222901 TERRELL COUNTY ISD	WHITE	-99	0	0	0
223901 BROWNFIELD ISD	WHITE	-99	0	0	0
225906 CHAPEL HILL ISD	WHITE	-99	0	0	-99
225907 HARTS BLUFF ISD	WHITE	-99	0	0	0
226901 CHRISTOVAL ISD	WHITE	-99	0	0	0
226903 SAN ANGELO ISD	AFRICAN AMERICAN	-99	-99	-99	0
	HISPANIC	5	-99	-99	0
	WHITE	15	7	-99	-99
226906 WALL ISD	WHITE	-99	0	0	0
226907 GRAPE CREEK ISD	HISPANIC	-99	0	0	0
	WHITE	-99	0	-99	0
227804 NYOS CHARTER SCHOOL	WHITE	0	-99	0	0
✓ 227901 AUSTIN ISD	AFRICAN AMERICAN	82	5	15	-99
	ASIAN	0	-99	0	0
	HISPANIC	31	5	6	-99
	NATIVE AMERICAN	-99	0	-99	0
	WHITE	25	34	-99	-99
227904 PFLUGERVILLE ISD	AFRICAN AMERICAN	7	0	0	0
	HISPANIC	-99	-99	-99	0
	WHITE	6	14	0	0
227907 MANOR ISD	AFRICAN AMERICAN	-99	-99	0	0
	HISPANIC	0	-99	-99	0
	WHITE	-99	-99	-99	0

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227909 EANES ISD	ASIAN	0	-99	0	0
	WHITE	-99	19	0	-99
227910 DEL VALLE ISD	AFRICAN AMERICAN	5	0	-99	-99
	HISPANIC	-99	0	-99	0
	WHITE	-99	0	0	0
227912 LAGO VISTA ISD	WHITE	0	-99	0	-99
227913 LAKE TRAVIS ISD	WHITE	-99	-99	0	0
228904 CENTERVILLE ISD	WHITE	0	-99	0	0
228905 APPLE SPRINGS ISD	WHITE	-99	0	0	0
229901 COLMESNEIL ISD	WHITE	-99	0	0	0
229903 WOODVILLE ISD	AFRICAN AMERICAN	-99	-99	-99	0
	HISPANIC	-99	-99	0	-99
	WHITE	-99	-99	-99	-99
229904 WARREN ISD	WHITE	-99	-99	0	0
230901 BIG SANDY ISD	AFRICAN AMERICAN	-99	0	0	0
	WHITE	0	-99	0	-99
230902 GILMER ISD	WHITE	-99	-99	-99	0
230906 NEW DIANA ISD	AFRICAN AMERICAN	0	0	-99	0
	WHITE	-99	-99	0	0
232902 SABINAL ISD	WHITE	-99	-99	0	0
232903 UVALDE CONS ISD	HISPANIC	35	0	5	0
	WHITE	6	0	0	0
232904 UTOPIA ISD	WHITE	-99	0	0	0
233901 SAN FELIPE-DEL RIO CONS ISD	AFRICAN AMERICAN	-99	0	0	0
	HISPANIC	6	0	0	0
	WHITE	-99	-99	0	0
234903 EDGEWOOD ISD	WHITE	0	-99	-99	0
234904 GRAND SALINE ISD	WHITE	-99	0	0	0
234905 MARTINS MILL ISD	WHITE	-99	0	0	0
234906 VAN ISD	WHITE	-99	-99	0	0
234907 WILLS POINT ISD	WHITE	5	0	0	0
234909 FRUITVALE ISD	WHITE	-99	0	0	0
235901 BLOOMINGTON ISD	WHITE	-99	0	0	-99
235902 VICTORIA ISD	AFRICAN AMERICAN	20	-99	-99	0
	HISPANIC	18	-99	-99	0
	WHITE	19	-99	-99	-99
235904 NURSERY ISD	WHITE	0	0	0	-99
236901 NEW WAVERLY ISD	WHITE	-99	0	0	0
236902 HUNTSVILLE ISD	AFRICAN AMERICAN	-99	-99	-99	0
	HISPANIC	0	0	-99	0
	WHITE	9	-99	-99	0
237902 HEMPSTEAD ISD	AFRICAN AMERICAN	-99	-99	-99	0
	HISPANIC	-99	-99	0	0
	WHITE	0	-99	-99	0
237904 WALLER ISD	AFRICAN AMERICAN	-99	0	0	0
	HISPANIC	-99	0	0	0
	WHITE	7	-99	0	0
237905 ROYAL ISD	AFRICAN AMERICAN	-99	-99	0	0
	HISPANIC	-99	0	0	0
238902 MONAHANS-WICKETT-PYOTE ISD	HISPANIC	0	0	-99	0
239901 BRENNHAM ISD	AFRICAN AMERICAN	-99	0	0	0

@PW9393/PMW-613

TEXAS EDUCATION AGENCY  
COUNT OF SPECIAL EDUCATION STUDENTS FOR GRADES 2-6 WHO ONLY  
HAVE A PRIMARY DISABILITY OF EMOTIONALLY DISTURBED AND A  
COUNT OF SPECIAL EDUCATION STUDENTS FOR GRADES 2-6 WHO ONLY  
HAVE A PRIMARY DISABILITY OF EMOTIONALLY DISTURBED AND A  
SECONDARY DISABILITY OF SPEECH IMPAIRMENT AND THEIR  
ECONOMIC STATUS  
PEIMS DATA 98-99

DISTRICT	ETHNICITY	ONLY ED ECO. DISADV. COUNT	ONLY ED NOT ECO. DISADV. COUNT	ED(PRIM) SPCH IMPAR(SECOND) ECO. DISADV.	ED(PRIM) SPCH IMPAR(SECOND) NOT ECO. DIS
239901 BRENHAM ISD	WHITE	-99	-99	0	0
239903 BURTON ISD	AFRICAN AMERICAN	0	0	-99	0
240901 LAREDO ISD	HISPANIC	39	-99	9	0
	WHITE	0	0	-99	0
240903 UNITED ISD	ASIAN	0	-99	0	0
	HISPANIC	16	-99	-99	-99
241902 EAST BERNARD ISD	WHITE	-99	0	0	0
241903 EL CAMPO ISD	AFRICAN AMERICAN	0	-99	-99	0
	WHITE	-99	-99	0	0
241904 WHARTON ISD	AFRICAN AMERICAN	-99	0	0	0
	HISPANIC	-99	0	0	0
243901 BURKBURNETT ISD	AFRICAN AMERICAN	-99	0	0	0
	WHITE	-99	-99	0	0
243902 ELECTRA ISD	WHITE	-99	0	0	0
243903 IOWA PARK CONS ISD	HISPANIC	0	0	0	-99
243905 WICHITA FALLS ISD	AFRICAN AMERICAN	17	0	-99	0
	HISPANIC	5	-99	-99	0
	NATIVE AMERICAN	-99	0	0	-99
	WHITE	18	14	-99	-99
243906 CITY VIEW ISD	WHITE	-99	0	0	0
244903 VERNON ISD	AFRICAN AMERICAN	0	0	-99	0
	WHITE	-99	0	0	0
245902 LYFORD CISD	HISPANIC	-99	0	0	0
245903 RAYMONDVILLE ISD	HISPANIC	8	0	-99	0
245904 SAN PERLITA ISD	HISPANIC	-99	0	0	0
246902 FLORENCE ISD	WHITE	-99	-99	0	0
246904 GEORGETOWN ISD	AFRICAN AMERICAN	-99	0	0	0
	HISPANIC	-99	0	0	0
	WHITE	5	6	-99	0
246906 HUTTO ISD	WHITE	0	-99	0	0
246907 JARRELL ISD	AFRICAN AMERICAN	0	0	-99	0
	WHITE	0	-99	0	0
246908 LIBERTY HILL ISD	AFRICAN AMERICAN	-99	-99	0	0
	HISPANIC	-99	-99	0	0
	WHITE	7	5	0	0
246909 ROUND ROCK ISD	AFRICAN AMERICAN	-99	-99	-99	-99
	HISPANIC	6	-99	-99	0
	WHITE	17	29	-99	-99
246911 TAYLOR ISD	AFRICAN AMERICAN	-99	0	0	0
	HISPANIC	-99	0	0	0
	WHITE	-99	0	0	0
246913 LEANDER ISD	HISPANIC	0	-99	0	0
	WHITE	9	13	-99	-99
247901 FLORESVILLE ISD	HISPANIC	7	0	0	0
	WHITE	9	-99	0	0
247903 LA VERNIA ISD	AFRICAN AMERICAN	0	-99	0	0
	HISPANIC	-99	-99	0	0
	WHITE	-99	5	0	-99
247904 POTH ISD	HISPANIC	-99	0	0	0
	WHITE	0	-99	0	-99
248901 KERMIT ISD	HISPANIC	-99	0	0	0
	WHITE	-99	0	0	-99
249901 ALVORD ISD	WHITE	-99	-99	0	0

SPW0303/PMW-033

TEXAS EDUCATION AGENCY  
COUNT OF SPECIAL EDUCATION STUDENTS FOR GRADES 2-6 WHO ONLY  
HAVE A PRIMARY DISABILITY OF EMOTIONALLY DISTURBED AND A  
COUNT OF SPECIAL EDUCATION STUDENTS FOR GRADES 2-6 WHO ONLY  
HAVE A PRIMARY DISABILITY OF EMOTIONALLY DISTURBED AND A  
SECONDARY DISABILITY OF SPEECH IMPAIRMENT AND THEIR  
ECONOMIC STATUS  
PEIMS DATA 98-99

DISTRICT	ETHNICITY	ONLY ED ECO. DISAB. COUNT	NOT ED ECO. DISAB. COUNT	ED(PRIM) SPECH IMPAIR(SCOND) ECO. DISAB.	ED(PRIM) SPECH IMPAIR(SCOND) NOT ECO. DIS
249905 DECATUR ISD	WHITE	-99	-99	-99	0
249906 SLIDELL ISD	WHITE	0	-99	0	-99
250902 HAWKINS ISD	WHITE	-99	0	0	-99
250903 MONROE ISD	HISPANIC	-99	0	0	0
	WHITE	0	-99	0	0
250905 KANTIS ISD	WHITE	0	-99	0	0
252000 GRAHAM ISD	WHITE	0	-99	0	0
253901 DAPATA COUNTY ISD	HISPANIC	0	0	-99	0
254901 CRYSTAL CITY ISD	HISPANIC	-99	0	0	0
	NATIVE AMERICAN	-99	0	0	0
	WHITE	0	-99	0	0
254902 LA PRYOR ISD	HISPANIC	-99	0	0	0

APPENDIX D

LETTER AND RESPONSE CARD TO DIRECTORS

OF SPECIAL EDUCATION



**Kathi O. Silver**

Post Office Box 7604 Dallas, Texas 75209-0604

Telephone 214-505-9950

Fax: 214-890-2307

Director of Special Education

Dear Director,

I am writing to invite your speech therapists to participate in a doctoral research study I am conducting and hope that permission can be granted. *The study focuses on grades 2-6 only.*

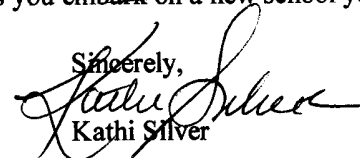
My request is minimum and involves a response to a one-question survey that is attached to this letter. The rationale and purpose of the study are also explained in the accompanying letter that would be sent to each therapist.

If you would like your district to participate, the simplest and most expedient method is my mailing the survey and letter *anonymously* to the therapist: *c/o Speech Therapist in the school.*

I would need a list of elementary schools. If a speech therapist serves more than one elementary school, I would need only the name and address of *one* school. My address and fax number are listed above.

I look forward to hearing from you. Enclosed is a postcard for you to send me to indicate your interest. Please return the card within the next ten days so that I know your plans.

Thank you so very much and my very best to you ~~as you embark on a new school year.~~

Sincerely,  
  
Kathi Silver

Research study.....for Kathi Silver

☐ **I will participate**

**List of schools grades 2-6**

(one school if speech therapist services more than one school)  
will be

☐ **faxed**

☐ **mailed**

☐ **I do not wish to participate in the study.**

If you choose to participate:  
thank you for returning this card ASAP and the list of schools.

\_\_\_\_\_  
district

\_\_\_\_\_  
contact name  
(optional)

Comments (optional):

APPENDIX E

LETTER AND SURVEY TO

SPEECH THERAPISTS

**Kathi O. Silver**

Post Office Box 7604 Dallas, Texas 75209-0604

214-505-9950

Date

Name of district  
Speech Therapist  
Special Education Department  
street address  
City., Texas zip

**SAMPLE**

Dear Colleague,

Your *collaboration* and *expertise* are urgently requested!

I am conducting research through the University of North Texas, Programs in Special Education under the tutelage of Dr. Lyndal M. Bullock. The focus of the study concerns special education students identified with emotional disturbance and speech/language deficits.

Before sharing the nature of the study, *I appeal to you to participate in the study and assist me by completing the enclosed card.*

The purpose of this study will be to identify co-occurring disabilities for students identified as emotionally disturbed who are also identified as having or not having a speech/language disorder as defined by IDEA. Students will be identified by (a) ethnicity and (b) socioeconomic status. The prevalence of this co-occurring disability in the schools is not documented in the literature. I intend to examine both the descriptive information relevant to the dual diagnoses and the statistical analysis to identify the variables of ethnicity and socioeconomic status in this population.

At the practitioner --classroom level, efforts to provide appropriate interventions for students who are identified as EBD and with speech/language deficiencies would be most important in meeting the individual needs of those students identified with these co-occurring disabilities.

The data for the study was obtained from the Public Evaluation Information Management Systems (PEIMS), a public information database of the Texas Education Agency in Austin. *Since the database does not distinguish speech services for articulation/fluency therapy from speech services for language therapy, I call for your help to make this distinction among those students you serve who are identified as emotionally disturbed and receive speech services for language.*

The enclosed card would require but a few minutes of your time to complete. Please note that I am not requesting any names of students, nor district information. I request only the number of students served.

Your assistance is greatly appreciated. The card is self addressed and stamped. If you would like the results of the study, you may e-mail me at ks0012@jove.acs.unt.edu, write to me at the above address, or include your mailing information on the card.

**I need your response as soon as possible, so please try to return the card within a week if possible.** Please accept the small token of compensation for your time and effort. Thank you so very much.

With much appreciation,

Students who are identified for special education with  
**EMOTIONAL DISTURBANCE &  
A LANGUAGE DISORDER only**

1998-1999 Academic Year

**Directions: Include only the count (number of students in each category who are identified with emotional disturbance and language disorder only. If none, indicate "0."**

**Grades 2-6 totals**

	not on free reduced lunch	on free/reduced lunch
Caucasian	_____	_____
African-American	_____	_____
Hispanic	_____	_____
Asian	_____	_____
Other	_____	_____
_____	_____	_____
_____	_____	_____

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The literature review focused on the impact of language in the development of appropriate personal interactions and communication skills, especially those relevant to pragmatic language factors and the implications of language competency in successful personal living and career roles and supported the importance of language as an important contributor to a person's life success and the correlation of EBD disabilities and speech/language disorders. Social skills instruction, the relationship of language, especially pragmatics, and social competencies for this population are included.

The results revealed a relationship between ethnicity and speech/language disorders among the students identified with EBD. In considering the population of students identified as EBD and language disordered, a significant relationship was found between ethnicity and socioeconomic status. Recommendations include suggestions for future research, assessment procedures, classroom interventions, and data collection methods.